

*The*

# *Communicator*

A Publication Of The Surrey Amateur Radio Club

June 2018

**SARC**

May 2018



## CONTACTS

(778) 683-4662

General Correspondence  
12144 - 57A Avenue  
Surrey, BC V3X 2S3  
[SARC at ve7sar.net](http://SARC.at.ve7sar.net)

Operations & Training Centre  
14265 - 57 Avenue  
Surrey, BC

## COMMUNICATOR &amp; BLOG EDITOR

John Schouten VE7TI  
[communicator at ve7sar.net](mailto:communicator@ve7sar.net)

## WEBMASTER

Jeremy Morse VE7TMY  
[webmaster at ve7sar.net](mailto:webmaster@ve7sar.net)

The **Communicator** is a publication of the Surrey Amateur Radio Club. It appears monthly, except July and August, for area Amateur Radio operators, to enhance the exchange of information and to promote local ham radio activity.

To subscribe, unsubscribe or change your address for e-mail delivery of this newsletter, notify [communicator @ ve7sar.net](mailto:communicator@ve7sar.net)

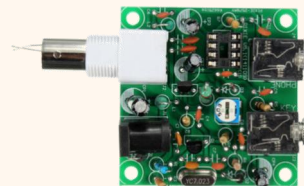
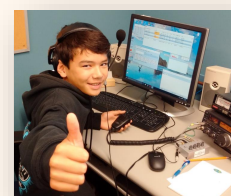
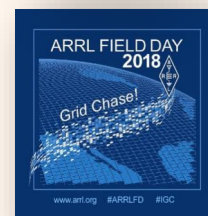
Regular readers who are not SARC members are invited to contribute a \$5 annual [donation](#) towards our Field Day fund.

SARC maintains a website at [www.ve7sar.net](http://www.ve7sar.net) and a Digital Communicator at [ve7sar.blogspot.ca](http://ve7sar.blogspot.ca) that includes recent news, past issues of The Communicator, club history, photos, videos and other information.

## IN THIS ISSUE

click on the page number below

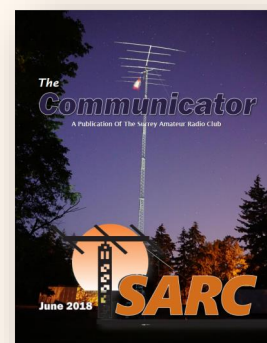
	QRM	3
The Rest Of The Story—John A. Fleming		4
Back To Basics—Regulations		8
What's Happening This Month In Ham?		12
News You Can Lose—Ham Humour		13
Club News—SARC		14
The 2018 SARC 80m Fox Hunt		16
Club Station News		18
A History of Field Day		20
Radio-Active		22
Emergency Comms—SEPAR Report		24
SARC-SEPAR Field Day		33
KB6NU's Column		34
The Contest Contender		36
Tech Topics—SWR Assumptions		39
RAC News		42
Solder Splatter—Pixie 40m CW Transceiver		43
QRT		42



## On The June Cover...

*This issue of The Communicator focusses on Field Day 2018 and some of the history of the event, plus contesting tips.*

*This is also the month for our Annual General Meeting so SARC members will find an AGM supplement. Enjoy this issue and we hope to see some of you at our Doors Open event and Field Day.*







# QRM

---.---.---.---

...from the Editor's Shack

*Do you have a photo or bit of club news to share?  
An Interesting link?*

*Something to sell or something you are looking for?  
eMail it to [communicator @ ve7sar.net](mailto:communicator@ve7sar.net) for inclusion in this publication.*

Here we are in June and the end of another SARC Amateur Radio year. It has been an exciting one with the continued outfitting of the Surrey OTC and the calendar events that our group participates in each year. The culmination of our year-end involves two events, our Annual General Meeting (AGM) on June 13th and Field Day on the June 23rd weekend.

But first, on Saturday, June 9th, we participate in [Surrey Doors Open](#) for the first time. This is a one day event sponsored by the City of Surrey. Doors Open encourages organizations to invite community members to “discover the story behind every door”. This free event offers fun activities for all ages, behind-the-scenes guided tours, entertainment, hop-on-hop-off transportation and more! Almost 5,000 visitors attended last year. Together with SEPAR, we will open the doors of the OTC between 11am and 4pm with a variety of displays and activities.

On Wednesday, June 13th our AGM takes the place of our regular meeting. We will review the past year, ask for ideas on the future of SARC and elect our 2018-2019 Society Directors. Your attendance would

be greatly appreciated. One cautionary note, because of the Spring freshet and the flood threat along the Fraser River, our regular meeting site at EMBC may not be available due to their EOC activation. You will be advised by email if there is a last-minute change of location.

To round out the month, and our year before we break for Summer, we have the Field Day weekend on June 23-24 with setup on Friday, June 21. Every June, more than 40,000 hams throughout North America set up temporary transmitting stations in public places to demonstrate ham radio's science, skill and service to our communities and our nation. It combines public service, emergency preparedness, community outreach, and technical skills all in a single event. Field Day has been an annual event since 1933, and remains the most popular event in ham radio. We have done very well in the past—we hope to repeat our successes. You will find extensive coverage of Field Day in this issue of The Communicator.

Please mark these dates and participate if you can.

~ John VE7TI  
Communicator Editor

## On the Web

[ve7sar.net](http://ve7sar.net)

Between newsletters, watch your e-mail for news, announcements of Amateur Radio events, monthly meetings and training opportunities.

Click the links below to follow our presence on the web:

**SARC Blog**

[ve7sar.blogspot.ca](http://ve7sar.blogspot.ca)

**Twitter**

[@ve7sar](https://twitter.com/ve7sar)

**FaceBook**

[SurreyAmateurRadio](#)

**Our YouTube Channel**

[SurreyARC](#)

**SARC Photo Albums**

[Web Albums](#)

or

[tinyurl.com/SARCphoto](http://tinyurl.com/SARCphoto)

*Service to others is the rent you pay for your room here on earth - Muhammad Ali*

May 2018



## The Rest Of The Story...

John Ambrose Fleming

*The little things of today may develop  
into the great things of tomorrow*



John Fleming

*The work of British scientist John Ambrose Fleming (1849-1945) in inventing the thermionic valve or vacuum tube, arguably laid the basis for modern electronics. The so-called Fleming valve was the first electronic tube device, and was used to detect high-frequency wireless signals. Fleming also made other important contributions to the practical applications of electricity, further contributing to his field through his work as a noted educator and author.*

Sir John Ambrose Fleming (29 November 1849 - 18 April 1945), an English electrical engineer and physicist, invented the first thermionic valve or vacuum tube, and also established the left-hand rule for electric motors. He was the eldest of seven children of James Fleming (died 1879), a Congregational minister, and his wife Mary Ann, at Lancaster, Lancashire, and baptised on 11 February 1850. A devout Christian, he once preached at St Martin-in-the-Fields in London on evidence for the resurrection. In 1932, he and Douglas Dewar and Bernard Acworth helped establish the Evolution Protest Movement. Childless himself, he bequeathed much of his estate to Christian charities, especially those for the poor. He was a noted photographer, painted water colours, and enjoyed climbing the Alps.

### Early years

Ambrose Fleming was born in Lancaster and educated at University College School, London,

and University College London. He entered St John's College, Cambridge in 1877, gaining his B.A. in 1881 and becoming a Fellow of St John's in 1883. He went on to Lecture at several universities including the University of Cambridge, the University of Nottingham, and University College London, where he was the first professor of Electrical Engineering. He was also consultant to the Marconi Wireless Telegraph Company, Swan Company, Ferranti, Edison Telephone, and later the Edison Electric Light Company. In 1892, Fleming presented an important paper on electrical transformer theory to the Institution of Electrical Engineers in London.

### Education and marriages

Fleming started school at about the age of ten, attending a private school where he particularly enjoyed geometry. Prior to that his mother tutored him and he had learned, virtually by heart, a book called the Child's Guide to Knowledge, a popular book of the day - even as an adult he would quote from it. His schooling continued at the University College School where, although accomplished at maths, he habitually came bottom of the class at Latin.

Even as a boy he wanted to become an engineer. At 11 he had his own workshop where he built model boats and engines. He even built his own camera, the start of a lifelong interest in photography. Training to become an engineer was beyond the family's financial resources, but he reached his goal via a path that alternated education with paid employment.

He enrolled for a BSc degree at University College, London, graduated in 1870, and studied under the mathematician Augustus de Morgan and the physicist George Carey Foster.



He became a student of chemistry at the Royal College of Science in South Kensington in London (now Imperial College). There he first studied Alessandro Volta's battery, which became the subject of his first scientific paper. This was the first paper to be read to the new Physical Society of London (now the Institute of Physics) and appears on page one of volume one of their Proceedings. Financial problems again forced him to work for a living and in the summer of 1874 he became science master at Cheltenham College, a public school, earning £400 per year. (He later also taught at Rossall School.) His own scientific research continued and he corresponded with James Clerk Maxwell at Cambridge University. After saving £400, and securing a grant of £50 a year, in October 1877 at the age of 27, he once again enrolled as a student, this time at Cambridge. He was among the two or perhaps three University students who attended Maxwell's last Course. Maxwell's lectures, he admitted, were difficult to follow. Maxwell, he said, often appeared obscure and had "a paradoxical and allusive way of speaking". On occasions Fleming was the only student at those lectures. Fleming again graduated, this time with a First Class Honours degree in chemistry and physics. He then obtained a DSc from London and served one year at Cambridge University as a demonstrator of mechanical engineering before being appointed as the first Professor of Physics and Mathematics at the University of Nottingham, but he left after less than a year.

On 11 June 1887 he married Clara Ripley (1856/7-1917), daughter of Walter Freake Pratt, a solicitor from Bath. On 27 July 1928 he married the popular young singer Olive May Franks (b. 1898/9), of Bristol, daughter of George Franks, a Cardiff businessman.

### Activities and achievements

After leaving the University of Nottingham in 1882, Fleming took up the post of "Electrician" to the Edison Electrical Light Company, advising on lighting systems and the new Ferranti alternating current systems. In 1884 Fleming joined University College London taking up the Chair of Electrical Technology, the first of its kind in England. Although this offered great opportunities, he recalls in his autobiography that the only equipment provided to him was a

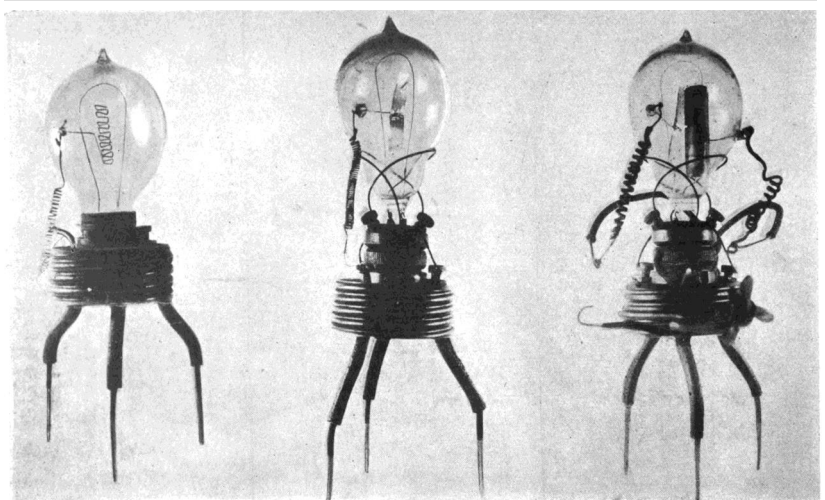
*(Continued on page 6)*

The English physicist John Ambrose Fleming worked as an engineering consultant for firms including Edison Swan, Edison Telephone and the Marconi Company. In 1904, as a result of experiments conducted on Edison effect bulbs imported from the United States, he developed a device he called an "oscillation valve" (because it passes current in only one direction). The heated filament, or cathode, was capable of thermionic emission of electrons that would flow to the plate (or anode) when it was at a positive voltage with respect to the cathode. Electrons, however, could not pass in the reverse direction because the plate was not heated and thus not capable of thermionic emission of electrons.

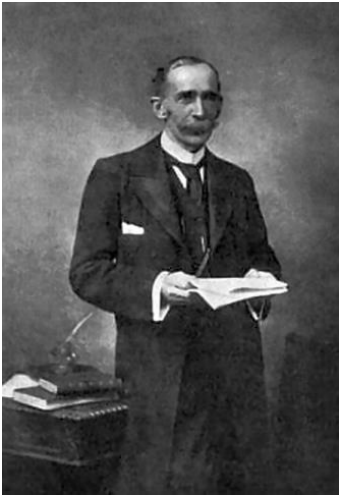
Later known as the Fleming valve, it could be used as a rectifier of alternating current and as a radio wave detector. This greatly improved the crystal set which rectified the radio signal using an early solid-state diode based on a crystal and a so-called cat's whisker, an adjustable point contact. Unlike modern semiconductors, such a diode required painstaking adjustment of the contact to the crystal in order for it to rectify.

The tube was relatively immune to vibration, and thus vastly superior on shipboard duty, particularly for navy ships with the shock of weapon fire commonly knocking the sensitive but delicate galena off its sensitive point (the tube was in general no more sensitive as a radio detector, but was adjustment free). The diode tube was a reliable alternative for detecting radio signals.

*Below: Fleming's first diodes*



May 2018

*Fleming in 1906*

*For a descriptive video of Fleming's work:*

<https://goo.gl/LNV4qh>

blackboard and piece of chalk. In 1897 the Pender Laboratory was founded at University College, London and Fleming took up the Pender Chair after the £5000 was endowed as a memorial to John Pender, the founder of Cable and Wireless. In 1899 Fleming became Scientific Advisor to the Marconi Company and soon after began work on designing the power plant at Poldhu in Cornwall to enable the Marconi Company to transmit across the Atlantic.

In 1904, he invented the two-electrode vacuum-tube rectifier, which he called the oscillation valve, for which he received a patent on 16 November. It was also called a thermionic valve, vacuum diode, kenotron, thermionic tube, or Fleming valve. The Supreme Court of the United States later invalidated the patent because of an improper disclaimer and, additionally, maintained the technology in the patent was known art when filed. This invention is often considered to have been the beginning of electronics, for this was the first vacuum tube. Fleming's diode was used in radio receivers and radars for many decades afterwards, until it was superseded by solid state electronic technology more than 50 years later.

Fleming retired from University College, London in 1927 at the age of 77. He remained active, becoming a committed advocate of the new technology of

Television which included serving as the second president of the Television Society.

In 1906, Lee De Forest of the US added a control "grid" to the valve to create a vacuum tube RF detector called the Audion, leading Fleming to

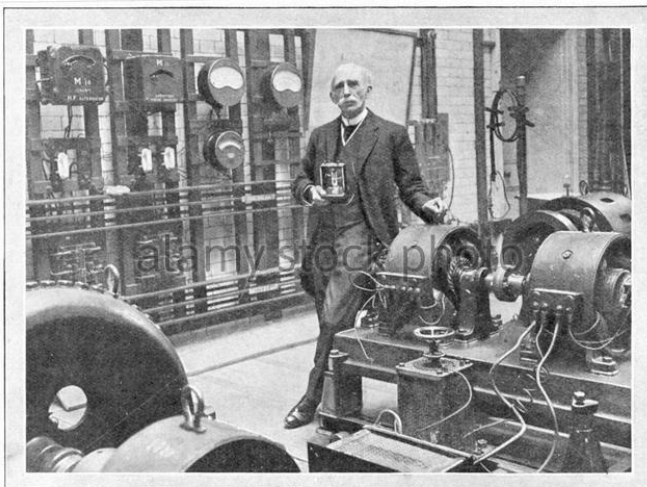
accuse him of copying his ideas. De Forest's device was shortly refined by him and Edwin H. Armstrong into the first electronic amplifier, a tube called the triode. The triode was vital in the creation of long-distance telephone and radio communications, radars, and early electronic digital computers (mechanical and electro-mechanical digital computers already existed using different technology). The court battle over these patents lasted for many years with victories at different stages for both sides. Fleming also contributed in the fields of photometry, electronics, wireless telegraphy (radio), and electrical measurements. He coined the term Power Factor to describe the true power flowing in an AC power system. He was knighted in 1929, and died at his home in Sidmouth, Devon in 1945. His contributions to electronic communications and radar were of vital importance in winning World War II. Fleming was awarded the IRE Medal of Honor in 1933 for "the conspicuous part he played in introducing physical and engineering principles into the radio art".

Note from eulogy at the Centenary celebration of the invention of the thermionic valve:

"A century ago, in November 1904, John Ambrose Fleming FRS, Pender Professor at UCL, filed GB 190424850 in Great Britain, for a device called the Thermionic Valve. When inserted together with a galvanometer, into a tuned electrical circuit, it could be used as a very sensitive rectifying detector of high frequency wireless currents, known as radio waves. It was a major step forward in the 'wireless revolution'.

In November 1905, he patented the "Fleming Valve" (US 803684). As a rectifying diode, and forerunner to the triode valve and many related structures, it can also be considered to be the device that gave birth to modern electronics.

In the ensuing years, valves quickly superseded "cat's whiskers" and were the main device used to create the electronics industry of today. They



DR. J. A. FLEMING STANDING BESIDE A WIRELESS DYNAMO



remained dominant until the transistor took dominance in the early 1970s

Today, descendants of the original valve (or vacuum tube) still play an important role in a range of applications. They can be found in the power stages of radio and television transmitters, in musical instrument amplifiers (particularly electric guitar and bass amplifiers), in some high-end audio amplifiers, as detectors of optical and short wavelength radiation, and in sensitive equipment that must be "radiation-hard".

In 1941 the London Power Company commemorated Fleming by naming a new 1,555 GRT coastal collier SS Ambrose Fleming.

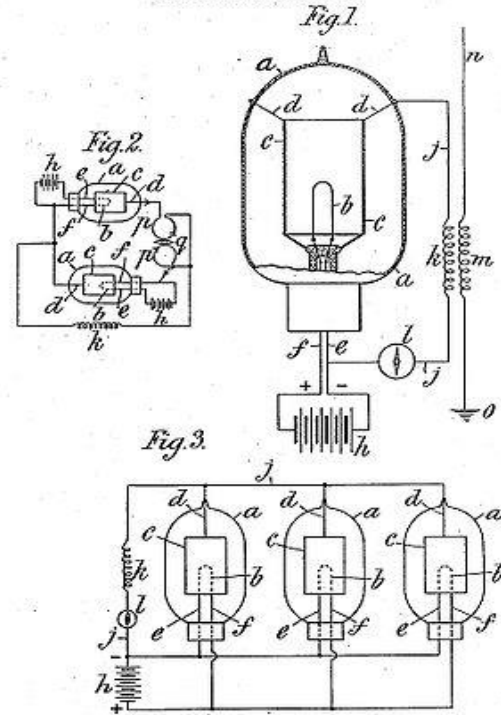
On 27 November 2004 a Blue Plaque presented by the Institute of Physics was unveiled at the Norman Lockyer Observatory, Sidmouth, to mark 100 years since the invention of the Thermionic Radio Valve.

The ramifications of the Fleming valve were myriad and far-reaching. It was a key component of radios for nearly three decades, until it was replaced by the transistor, and was integral to the development of television, telephones, and even early computers. Just as he had inaugurated the department of electrical engineering at University College, London, Fleming also established the basis for the field of electronics itself. As Orrin E. Dunlap, Jr., quoted Fleming as modestly commenting in Radio's One Hundred Men of Science, "The little things of today may develop into the great things of tomorrow."

And that... is the rest of this story.

No. 803,684. PATENTED NOV. 7, 1905.

J. A. FLEMING.  
INSTRUMENT FOR CONVERTING ALTERNATING ELECTRIC CURRENTS  
INTO CONTINUOUS CURRENTS.  
APPLICATION FILED APR. 10, 1905.



Witnesses

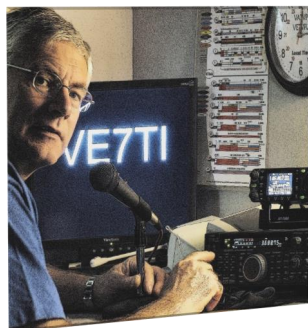
William H. Davis.  
James J. Cooper.

Inventor

John Ambrose Fleming  
by his attorneys  
Rice, Rice, Shaffner & Rice



May 2018



## Back to Basics

John Schouten VE7TI

### *From The Basic Question Bank*

#### ***Keeping Out Of Trouble!***

*This month, let's look at some examples of the legalities, staying within the terms of your Amateur Radio license. For our foreign readers, the following pertains to the Canadian Radiocommunications Regulations. The rules may vary in your country.*

##### **B-001-002-004**

The Amateur Radio Operator Certificate:

1. must be put on file
2. must be kept in a safe place
3. must be retained at the station
4. must be kept on the person to whom it is issued

The Regulations portion of a typical (randomly generated) Basic exam can comprise up to 30% of the total score. That's up to 30 questions! Most of these questions have a good component of common sense associated, for example I think most people would know not to send a false distress message. Some questions require rote memory. For example, it is difficult to expect someone completely new to the hobby to know the intricacies of third party traffic.

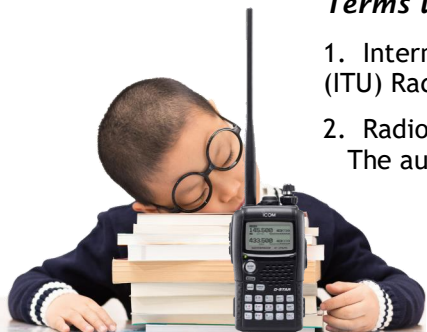
There is a series of questions in The Canadian Basic Question Bank ([RIC-7](#)) that relate to your privilege of operating in Amateur Radio. However, like driving, it is a privilege that can be rescinded if you do not follow the rules.

#### ***Terms used in the ISED Regulations***

1. International Telecommunication Union (ITU) Radio Regulations.
2. Radiocommunication Act (RA). (Canada)  
The authority to make regulations and set

standards for the operation of radio stations in Amateur Radio. It also outlines fines and penalties for contraventions of the Act.

3. Radiocommunication Regulations. (RR). (Canada) Define the Amateur Radio Service.
4. Radio Information Circular 1 (RIC-1). Guide for Examiners Accredited to Conduct Examinations for the Amateur Radio Operator Certificate.
5. Radio Information Circular 2 (RIC-2). Standards for the Operation of Radio Stations in the Amateur Radio Service.
6. Radio Information Circular 3 (RIC-3). Reciprocal Operating and Third Party Traffic Agreements and Arrangements in the Amateur Radio Service.
7. Radio Information Circular 7 (RIC-7). Basic Qualification Question Bank for Amateur Radio Operator Certificate Examinations.
8. Radio Information Circular 9 (RIC-9). Call Sign Policy and Special Event Prefixes.
9. Radio Information Circular 24 (RIC-24). Information on the Amateur Operator's Certificate Examinations
10. CEPT Amateur Radio Licence (T/R 61-01 E).
11. Control Operator. An amateur operator designated by the licensee of a station to be responsible for the transmissions from that station to assure compliance with the Radiocommunication Regulations.
12. Dwelling House. Means the whole or any part of a building or structure that is kept or occupied as a permanent or temporary residence, and includes





(a) a building within the curtilage [an enclosed area] of a dwelling-house that is connected to it by a doorway or by a covered and enclosed passage-way, and

(b) a unit that is designed to be mobile and to be used as a permanent or temporary residence and that is being used as such a residence.

Now the basics of remaining qualified to operate...

### Summary of the IC Regulations

1. In Canada, the authority to make Radiocommunication Regulations is derived from the Radiocommunication Act.
2. Authority to make Standards for the Operation of Radio Stations in the Amateur Service is also derived from the Radiocommunication Act
3. The Department that is responsible for the administration of the Radiocommunication Act is Industry Canada.
4. The amateur radio service is defined in the Radiocommunication Regulations.
5. In addition to complying with the Radiocommunication Act, the Radiocommunication Regulations, Canadian radio amateurs must also comply with the regulations of the International Telecommunication Union (ITU).
6. ITU Radio Regulations requires the administration of the various membership countries to take such measures as they judge necessary to verify the operational and technical qualification of amateurs.
7. The ITU Radio Regulations limit those radio amateurs, who have not demonstrated proficiency in Morse code to frequencies above 30 MHz.
8. Canada along with the rest of North and South America is in ITU Region 2.
9. Australia, Japan and Southeast Asia are in ITU Region 3.
10. Europe, Africa and the former Soviet Union are in ITU Region 1.
11. If a Canadian amateur operates his/her station in another country, he/she must comply with that country's rules and regulations. Sort of *when in Rome do what the Romans do*.
12. There are three different qualifications that you can obtain in amateur radio. They are:
  - Basic Qualification
  - 5 word per minute (5 wpm) Morse Code Qualification.
  - Advanced Qualification

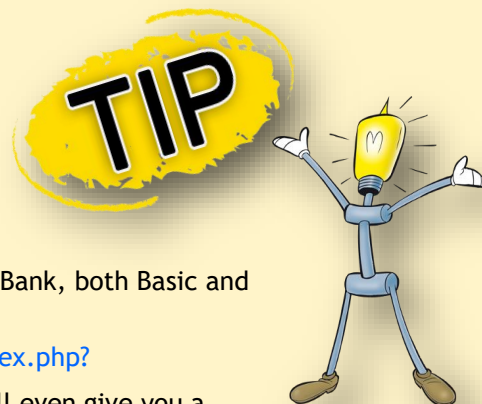
(Continued on page 10)

### Study Links

Whether you are new to the hobby or brushing up on skills, you should find these study links helpful:

1. RIC-7 is the entire up-to-date Industry Canada (IC) Basic Question Bank.  
<http://tinyurl.com/CanadaBasicQB>
2. There is a RIC-7 that has some explanations along with the questions.  
[RIC-7 2014rev08.05 with explanations](#).
3. The Amateur Radio Exam Generator is at:  
[https://www.ic.gc.ca/eic/site/025.nsf/eng/h\\_00040.html](https://www.ic.gc.ca/eic/site/025.nsf/eng/h_00040.html)
4. The ExHaminer Study software for Windows is at:  
<https://wp.rac.ca/exhaminer-v2-5/>
5. The Ham Study website has a flash card approach to learning the Question Bank, both Basic and Advanced. It is at: <https://hamstudy.org>
6. Exam Primer with answer checking: <http://www.fcrc.ca/ExamPrimer/index.php?>

Contact SARC if you wish to write the Basic or Advanced Exam. If you pass we'll even give you a year's free membership!



May 2018

Even if you have all the other qualifications, you must obtain the Basic Qualification in order to qualify for the Amateur Radio Operator Certificate.

14. You may take the qualifications in any order. You will not attain operating privileges however, until you obtain your Basic Qualification.
15. The now defunct Amateur Digital Radio Operator's Certificate equates to having the Basic and Advanced Qualifications.
16. When issued your Amateur Radio Operator Certificate, it is valid for life.
17. Once you have obtained your Amateur Radio Operator Certificate, you are authorized to operate a radio station in the amateur service according to the restrictions of that certificate.
18. In July of 2005, Industry Canada modified the requirements for operating within the HF bands as follows:
  - Morse code will no longer be the sole additional requirement by which Canadian radio amateurs will gain access to the HF bands, but it will remain as one valid criterion.
  - Amateurs showing superior knowledge of operational, technical and regulatory requirements by attaining an 80% score on the basic exam or passing the advanced exam, will also be granted access to the HF bands.
  - "Grandfathering" of existing amateurs will be based on the following criteria:
    - I. Amateurs certified after April 1, 2002, who have demonstrated a superior knowledge of operational, technical and regulatory requirements by achieving a mark on the basic examination of 80% or above will be allowed to operate in the HF bands below 30 MHz.
    - II. Amateurs certified prior to April 2, 2002 will be allowed to operate in the HF bands below 30 MHz based on the experience and knowledge they have acquired over this period of time.
    - III. Amateurs holding basic and advanced qualifications will be allowed to operate in the HF bands below 30 MHz.
19. Radio apparatus may be installed, placed in operation, repaired or maintained by the holder of an Amateur Radio Operator Certificate with Basic, Basic plus 5 wpm, or Advanced Qualification on behalf of another person if the other person is the holder of a radio authorization to operate in the amateur radio service. **You may not install, put in operation, modify, repair, maintain or permit the operation of a radio apparatus for a person who does not have a radio authorization to operate in the amateur service.**
20. It doesn't matter how little the power output of a transmitter is, it must be licensed at all locations.
21. An amateur station may only communicate with similarly licensed stations.
22. The holder of an Amateur Radio Operator Certificate with the Advanced Qualification may build transmitting equipment for use in the amateur radio service.
23. There are no age restrictions for applying for an Amateur Radio Operator Certificate.
24. The Amateur Radio Operator Certificate must be retained at your station.
25. When you change your postal address you must inform Industry Canada within 30 days of your new postal address.
26. The holder of an Amateur Radio Operator Certificate may install or operate radio apparatus at any location in Canada.
27. Amateur radio operators must use only the minimum legal transmitter power necessary to communicate.
28. An amateur with Basic, or the Basic plus 5 w.p.m. Qualification is restricted to a maximum of 250 watts DC input power to the anode or collector circuit of the final RF stage of the transmitter (560 watts PEP output for SSB signals) on all bands.
29. An amateur with an Amateur Radio Operator Certificate plus the Advanced qualifications is restricted to a maximum



- 1000 watts DC (2250 watts PEP when using SSB) power input to the anode or collector circuit of the final RF stage of the transmitter on those bands that his/her qualifications allow.
30. Power measurements are made at the antenna terminals of the transmitter or amplifier.
  31. When operating on all frequencies below 148MHz the frequency stability of the transmitter must be comparable to crystal control.
  32. A reliable means to prevent or indicate overmodulation must be employed at an amateur station if radiotelephony is used. The maximum percentage of modulation that is allowed using radiotelephony is 100 percent.
  33. All amateur stations, regardless of the mode of transmission used, must be equipped with a reliable means of determining the operating radio frequency.
  34. An amateur radio station that automatically re-transmits the signals of other amateur radio stations is known as a repeater.
  35. Radiotelephone signals in a band below 29.5 MHz cannot be automatically retransmitted, unless these signals are received from a station operated by a person qualified to transmit on frequencies below the above mentioned frequency.
  36. Radiotelephone signals may be retransmitted in the 29.5-29.7 MHz band and in all the VHF/UHF bands when received from a station operating in a VHF/UHF band from a person with only the Basic qualification. Retransmission of a signal received from holder of a Basic only qualification operating in the VHF/UHF bands is not allowed below 29.5 MHz.
  37. An unmodulated carrier may only be transmitted for brief periods below 30 MHz. This is usually for station adjustment purposes.
  38. In order to install any radio apparatus, to be used specifically for receiving and automatically retransmitting radiotelephone communications (repeaters) within the same frequency band, a radio amateur must hold an Amateur Radio Operator Certificate with a minimum of the Basic and Advanced Qualification.
  39. In order to install any radio apparatus, to be used specifically for an amateur radio club station, the radio amateur must hold an Amateur Radio Operator Certificate with a minimum of the Basic and Advanced Qualification.
  40. In order to install or operate a transmitter or RF amplifier that is not commercially manufactured for use in the amateur service, a radio amateur must hold the Amateur Radio Operator Certificate with the minimum of the Basic and Advanced Qualification.
  41. The holder of an Amateur Radio Operator Certificate must comply with the authority that that certificate bestows on the operator and station owned by the operator.
  42. Both the station licensee and the control operator are responsible for the proper operation of an amateur radio station and normally this is the same person, you, however if you are using someone else's station, then both of you are responsible for the proper operation of the station.
  43. As a station owner, you are responsible for the proper operation of the station in accordance with the regulations. A control operator may be any qualified amateur chosen by the station owner. A station must have a control operator whenever the station is transmitting, be it yourself or someone qualified chosen by you, the owner. The control operator must be at the stations control point.
  44. The owner of an amateur station may allow anyone to operate the station under the supervision and in the presence of the holder of the amateur operator certificate. This is known as third party communications and you must continuously monitor and supervise the third parties participation.
  45. If you allow another amateur with additional qualification than yours control your station he/she is only allowed the operating privileges of your Amateur Radio Operator Certificate.
  46. If you are the control operator of a station of another amateur who has additional qualifications to yours, you are allowed the operating privileges of that additional qualification.
- Do you recall the question we started out with? Well, given the foregoing, the correct answer to our question was in #24:
- A. Three**
- For our next Communicator, in September, we'll look at the rest of the Regulations in capsule form. Until then, have a great summer!
- ~ 73, John VE7T

May 2018

# June 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
<p>For details on all SARC events, go to <a href="http://ve7sar.net">ve7sar.net</a></p> <p>For details on all SEPARS events, go to <a href="http://separ.shutterfly.com/calendar">separ.shutterfly.com/calendar</a></p>					1	2 08-1000 Club Social: Kalmar Family Restaurant King George Blvd & 81st Avenue  <b>CONTEST: Kentucky QSO Party (all modes)</b>
3 <b>CONTEST: Kentucky QSO Party (all modes)</b>	4	5 1930 SEPAR Net 2000 SARC Net	6	7	8	9 08-1000 Club Social: Kalmar Family Restaurant  <b>Surrey Doors Open (OTC) 11am–4pm</b>
10	11	12 1930 SEPAR Net 2000 SARC Net	13 <b>1900 SARC Annual General Meeting</b>	14	15	16 08-1000 Club Social: Kalmar Family Restaurant <b>CONTEST: All Asian DX (CW)</b>
17 <b>Father's Day</b> <b>CONTEST: All Asian DX (CW)</b>	18	19 1930 SEPAR Net 2000 SARC Net	20	21	22 0800 FD Breakfast Kalmar <b>Field Day Set-Up</b>	23 <b>Field Day!</b>
24 <b>Field Day!</b>	25	26	27 <b>SARC Exec Meeting</b>	28	29	30 08-1000 Club Social: Kalmar Family Restaurant

Contest Details: <http://hornucopia.com/contestcal/contestcal.html>





## Page 13—News You Can Lose

The Lighter Side of Amateur Radio

### *Lack Of Cash No Problem For DX'er*

*By K5PO, on the scene*

**SIERRA BAY, WASHINGTON** - A Lafayette Parrish amateur radio operator has a unique solution for his love of DX, but his lack of cash.

"I always wanted to travel the world setting up DXpeditions from rare and desirable locations. So this is the next best thing!" exclaims retired landscaper Arthur Gibbons.

Gibbons says his meager savings won't allow global travel, so instead he's devised an economical plan.

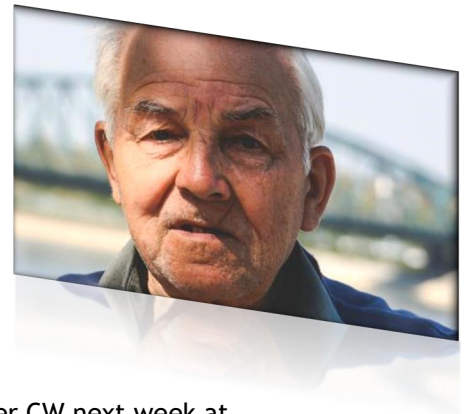
"Each week," says the avid DX-er, "I travel to a different ethnic restaurant and set up my portable QRP rig in the parking lot. My homemade HF antenna on top of the push-up

pole sure radiates on all that asphalt!"

So far this month, Gibbons has operated from the "Isle of Sardinia" Italian restaurant, the "Taste of Baghdad" middle eastern restaurant and the "Nairobi Diner" east African eatery.

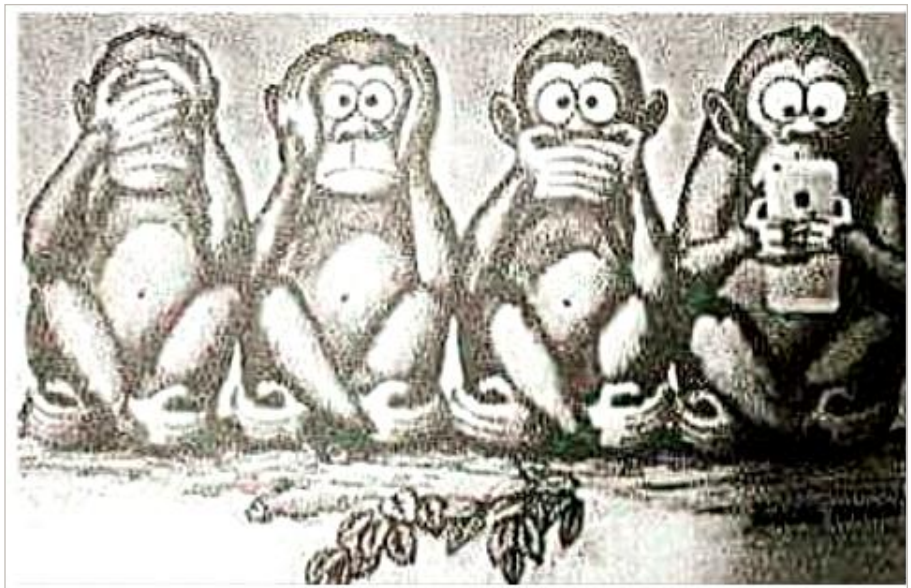
Look for Gibbons on 20 meter CW next week at "Roberto's Taqueria (Wednesday) and "Our Wurst is Best" German restaurant (Friday).

*~ Ham Hijinks*



## The WhatsApe

Finally, the fourth ape. He is the sum total of the first three: He sees nothing, doesn't listen, and can't carry on a conversation.



May 2018



## At The Last SARC Meeting

May General Meeting Minutes

**Wednesday, May 9, 2018**

Location: Surrey PREOC  
Attendees: 19

At 1908 hr, President Stan Williams VA7NF welcomed members and visitors to the meeting. New member, Ron Fraser VA7WDW, was introduced.

### Financial Report

Scott Hawrelak VE7HA gave the financial report, noting the balances in the checking, Paypal, OTC and Gaming Grant accounts. Scott requested that annual membership dues be paid up as soon as possible, because Scott will not be at the June AGM and it will be necessary to be in good standing in order to vote.

### Committee Reports

#### Membership

John Brodie VA7XB reported that current membership stands at 126, which is expected to decrease after the AGM, as a number of ham class members (given a free year's membership) are not expected to renew.

#### OTC

Steve McLean VE7SXM has picked up the Expert Linear amplifier today and it's ready to be set up in conjunction with the ICOM-7610. Stan VA7NF advised that the Flex 6600 has also arrived and been tested. John VA7XB noted that the OTC and Gaming Grant accounts are now depleted. He advised that the OCF wire antenna at the OTC needs replacement in order to take full power, including a high power balun. John

moved that he be authorized to spend approx \$400 on antenna parts for the antenna. Seconded: Robert Fishwick VA7FMR.

Motion carried.

Stan VA7NF has offered to provide some training to members of the club on the Flex 6600. John VA7XB and John Schouten VE7TI have offered to provide training on the ICOM-7610.

Saturday mornings after the breakfast meeting at Kalmar often works for Stan (6600) and Sunday AM works for John (7610). Members are invited to participate in the CQM CW & SSB contest on May 12/13. A problem when sending CW at high speeds with the IC-7610 has been noted to occur with one particular computer, and all suggestions made by the N1MM team have been tried without success.

Standoffs have been installed on the Old Yeller tower to keep the coax from binding when raising or lowering the tower. The paint is peeling from Old Yeller so we will need to consider some maintenance in the future (sand blasting and repainting?).

### SEPARS/SARC

John Schouten prepared a "white paper" describing the organization structure of the two groups for further consideration.

### Fox Hunt

Anton James VE7SSD reminded members about the Fox Hunt planned for Saturday May 19th at Crescent Park in White Rock.

Details can be found on the SARC blog. It will be an 80 meter fox only with a BBQ afterwards. . Jason Biggin VA7IJT, Stan VA7NF, Jan Vozenilek VA7VJ and John Schouten VE7TI volunteered to work with Les Tocko VA7OM in setting up the foxes, A ham license is not required to participate so non-ham guests are welcome.

### **Net**

Robert Fishwick VA7FMR reported that there were two Echolink check-ins from Europe this week. Kjeld Frederiksen VE7GP was in Denmark and Roland Klann VE7RGK/TA2 was in Turkey. Thanks to Kjeld and Roland for checking in during their travels.

### **AGM**

Stan VA7NF noted that there is a significant likelihood that the PREOC will be occupied for the June AGM meeting due to flooding around the Province. The directors will be discussing the options.

### **Field Day**

Sheldon Ward VA7XNL reported that the Field Day Committee is waiting for authorization to use the Grandview Heights school grounds. One fallback option is to operate from the OTC. We are planning to run 3A which is 3 stations on generator power. Anyone that still needs practice time on

the new radios should get involved with some of the remaining contests between now and Field Day. Two options for antenna layout were discussed, including a 160m inverted vee, long wire 160-80-40 OCF dipole and 40m wire beam.

Possible layouts for the grounds were discussed including antennas, tents and parking etc. A suggestion was made to ask Fred Orsetti VE7TI to receive the Field Day message from his QTH.

Anton James VE7SSD volunteered to take on messaging for bonus points. It was later suggested and agreed that Anton work with SEPAR to accomplish this task.

Jeremy Morse VE7TMY reminded participants to bring VHF handhelds to Field Day so we can communicate across the site easily. Look for the simplex frequency in the next Communicator and be sure to have your HT ready to go. Also bring safety equipment, including gloves, for those working on the tower.

N1MM K8UT video was presented to the group as an orientation about logging during Field Day.

<http://n1mm.hamdocs.com/tiki-index.php?page=Instructional+Videos>

Meeting was adjourned: 9:13pm

~ Jeremy VE7TMY



**At the SARC FoxHunt**

**Next Page**

**See the video:**

<https://youtu.be/N40Ij6AvrXQ>



May 2018



## The SARC Annual FoxHunt

80 Meters Was The Winner!



As reported in the May Communicator, the annual SARC “Fox Hunt” was held on May 19<sup>th</sup> in the now usual location of Crescent Park in South Surrey. SARC members, guests and friends supported the event; with 20 Hams participated in the actual ‘Hunt’.

It was a dry sunny day and those participating were divided up into teams with shared equipment, or chose to go as a single person ‘team’. With great enthusiasm the groups were dispatched in five minute intervals. Much fun was had by all.

With the popularity of 80m this year, we did away with the 2m foxes and there were five 80m foxes hidden throughout the park. Participants were allocated 2.5 hours to find them.

The social half of the event was the informal BBQ, providing opportunity to

engage in adventure stories, exchange lessons learned, and challenges overcome, culminating in warm camaraderie over a burger and hot dog.

In any planned event, such as this there are many moving parts and I extend recognition and greatest of thanks to Les Tocko VA7OM, Jan Vozenilek VA7VJ, and John Schouten VE7TI, who handled all the set up and the technical aspects of the “foxes”. Much appreciation to Brenda (XYL of Anton VE7SSD) for food shopping and our chefs, Scott VE7HA, John VA7XB and Heather John’s XYL for expertly manning the BBQ. Special mention is made of Amel VA7KBA of BC Radio Sport, who, through a scheduling conflict, was unable to attend. His support throughout the year is acknowledged.



### The results:

#### 80 m Group

1st place, Henry Dahl VE7HRY 5 foxes 55 minutes  
 2nd place, Kapila Jayaweera VE7KGK 5 foxes 85 minutes  
 3rd place, Lian/Avin (unlicensed) 5 foxes 103 minutes





An informal “prize” ceremony was held. Bragging rights and the 'crystal fox' trophy was awarded to the winner, Henry VE7HRY. The stuffed musical bunny was awarded to Kapila VE7KGK .

Mark your calendars for tentatively the same time next year on May 18<sup>th</sup> 2019 as we look forward to another annual SARC FoxHunt

~ Anton James VE7SSD  
SARC FoxHunt Coordinator

*Top right and clockwise: John VA7XB demonstrates the 80m Fox receiver. Les VA7OM provides tips to new Fox Hunter Ron VE7VTA, Henry VE7HRY receives first place—the coveted 'Crystal Bunny'. Kapila VE7KGK receives 2nd place, the stuffed bunny. Master of Ceremonies Anton VE7SSD thanks those participating and relates the history of the bunny.*

*Below: John VA7XB and Anton VE7SSD at the barbecue.*





May 2018

## Club Station News

John Brodie VA7XB

### *Some Useful Information Regarding Off-Centre Fed Dipoles*



*Whereas a Dipole is a half-wavelength long radiator, fed in the Center of two equal length legs, the Off-Center-Fed Dipole (which many prefer to call a Windom) is a Dipole whose feedpoint is at a point removed from the center of the antenna.*

With our new high power amplifier soon to be given its debut at the OTC, the Executive and OTC committee have been considering how the club's 130 ft long off-centre fed wire dipole (or "OCF" dipole, sometimes incorrectly called a "windom") should be upgraded to handle the high power. An OCF dipole allows multi-band operation, and relies on a 4:1 current balun at the antenna feedpoint for impedance matching.

Problem: a high power balun is very large and I had concerns about the weight of this device suspended from a tree 50 ft in the air. This concern was not shared by everyone, but nevertheless, thought was given to use of open wire feeder or ladder line, with the balun relocated. In doing some research on options, I came across this website devoted mostly to use of open-wire or ladder line feeders:

<http://kv5r.com/ham-radio/ladder-line/>

Following is a shortened version of the exchange of posts with Harold Melton KV5R, the host of the foregoing website.

**VA7XB:** Considering the excessive weight of a high-power 4:1 balun hanging in the air from the antenna wires, our club is considering feeding an OCFD with about 60 ft of 450 ohm ladder line to a 4:1 balun at roof level, connected to 100 ft of 50 ohm coax to the shack. I am hearing mixed opinions about the wisdom of this approach and would appreciate some enlightened advice. A related question: I am told that an OCFD is in fact a "balanced" antenna because the current and voltage are identical in each leg at the feed point. I would appreciate your opinion regarding this technical point, because I am seeing contrary advice in various sources.

**KV5R:** An OCFD is NOT balanced, and unless it has a current balun/choke at the feed-point, the feed-line will be a radiating part of the system. Running 100 feet of coax from balun to shack will work on 80 but be terribly lossy on 40, assuming the dipole is cut for 80 meters.

To use for both 80 and 40 you will need to center-feed and run ladder line all the way, to a good 1:1 bifilar-wound choke/balun in or near the tuner (few feet of coax jumper is OK). If the doublet is cut for 80 (~130 feet), the impedance will be low on 80 (and a 4:1 would make it WAY too low), and very high on 40, where it's 1 wavelength long.

The antenna I run now is a 130-foot center-fed dipole at 40 feet, with ~154 feet (5/8ths-wave @ 3.8MHz @ .95VF) of 4-inch open-wire ladder-line, to a 1:1 bifilar-wound choke in a 989D tuner. It works well on both 80 and 40 at 1kw. I designed it based on engineering documents from both DXE and Balun Designs. They recommend using ladder line length that is odd-eighth-wave multiples, so the line transforms low impedance up to medium (~500 ohms) on the fundamental frequency, and also transforms high impedance down to medium on the even harmonic (ie, 40M on an 80M dipole). Both DXE and Balun Designs are now making 1:1 choke/baluns designed to be efficient over a wide impedance range typically found in "all-band" (non-resonant) ladder-line-fed doublets.

Hope this is helpful; please let us know how it works out for your club! 73, -kv5r

**VA7XB:** Harold, thank you for your reply. I had a feeling that this was not going to work. Perhaps the solution for us is to stick with the OCFD, with extra attention given to adequate suspension of the balun.





It is obvious that an antenna like the centre fed dipole is “balanced” because of its symmetrical geometry, but it leaves me wondering .... what then are the defining factors that make an antenna “balanced”?

**KV5R:** Okay, some clarifications: The classic center-fed 80 (or 160) meter doublet, with ladder line and a tuner, will work all HF bands, though some trimming of the line may be needed to get it within the tuner’s range on one or more upper bands. That has been my experience with both a 160 and an 80.

The line length recommended by DXE and Balun Designs is odd-eighth-wave multiples ( $1/8, 3/8, 5/8$ , etc., of the fundamental frequency). The formula given is  $123/f(\text{MHz}) \times VF \times n(\text{odd}) = \text{LL length}$ . The general idea is to place impedance extremes between bands, at the tuner end of the line, so that the tuner never “sees” excessive current (i.e.  $< 25$  ohms, or excessive voltage (like  $> 3,000$  ohms)).

A “balanced” doublet DOES present an equal and opposite load at the feed-point, thus 180 degree phase cancellation in the feed-line, so it’s a transmission line, not a radiator. Such balance at the feed-point is most easily provided by both geometric and near-field-environment symmetry (same length and height on each end; flat-top or inverted vee, but not a sloper, for example). Simply put, when each leg draws equal and opposite-polarity power, the transmission will not radiate. It has nothing to do with impedance (mis)matching or SWR, just balance and thus phase cancellation.

The idea of the OCFD is to hit a higher impedance feed-point (for parallel feeders), which “resonate” on all multiples, not just odd multiples (as does the full-wave loop). But the down-side is that the OCFD is highly UN-balanced (at the feed) and thus causes a lot of feed-line radiation, requiring some form of current balun/choke/isolator device at the feed-point. Such devices must handle high current on some bands, high voltage on others, without overheating, saturating, or arcing – so they tend to be beefy and expensive. And keep in mind, the more work a “BAL-UN” has to do, the more power it wastes as heat. Thus, if you use a light-duty balun on an OCFD at high power, you will quickly fry it.

For that reason, I avoid OCFD designs, and also because all the old antenna gurus recommend against their use except for low power.

The long-standing, tried-and-true, recommendation for the multi-band doublet is to center-feed with parallel feeders (window-line or open-wire-line), and use no balun except a common-mode choke (typically a bifilar-wound toroid at the shack end) and a big ol’ antenna tuner.

That arrangement:

1. makes a great NVIS antenna on the low bands;
2. works reasonably well at lower angles on the higher bands where it’s  $>$  half-wave high;
3. eliminates the problem of coax’ high loss at high SWR; and
4. is simple to design and build.

The down-sides are:

1. it requires a tuner and common-mode choke;
2. performance on the upper bands (particularly 10 meters) is rather spotty due to many lobes and nulls in the pattern; and
3. may require tweaking feed-line length to get the shack-end within range of the tuner on all bands.

**VA7XB:** If we were to deploy a 130 ft centre-fed doublet fed by balanced feeder for multi-band use, the new challenge would be the need for a wide range tuner at the shack end. This 1 kw station will be used by a variety of club members having different skill levels and the potential for a fatal mismatch is a significant risk. Our simplest solution may be to simply beef up the support for the heavy balun and stick with the OCF option.

~ John VA7XB



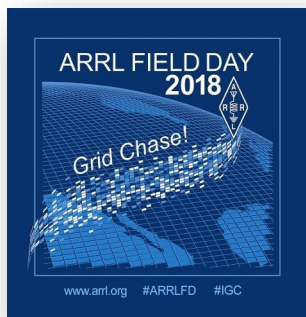
May 2018



## History Of Field Day

John Schouten VE7TI

### *A Look At Field Days Past*



In 1933, The June 1933 QST announced that the second Saturday in June, for a period of 27 hours, starting at 4 pm local time, that hams would go into the "field" and set up portable stations.

W1BDI F.E. Handy said:

"The real object of this contest is to test 'portables' wherever they may be available.... If successful, we want to make it an annual affair."

The scoring of that first contest was each QSO with fixed stations will count 1 point, contacts with other portables count 2 points, and DX contacts count 3 points. Multiply QSO points by the total number of ARRL sections, plus countries worked In September 1933 QST announced the winner of the 1st Annual Field Day was W4PAW. They made 62 QSOs and had 28 sections for a total of 1876 points.

1934 Field Day #2 is announced.

1936 Field Day was so popular that a second Field Day was held August 22nd-23rd of that year. The highest qso total for June was 143 and the highest QSo total for August was 136.

1937-Field day #5 is announced for June 19th-20th. The FD message bonus was added. The winning qso for this FD was 204 QSO's at a rate of 7.5 qsos/hr.

1938- Field Day period goes from 4 pm Saturday Local time to 6 pm Sunday Local time.

1939- the first rule to include all station apparatus must fall within a 100 ft radius excluding antennas.

1940-The 100' rules is changed to 500'. Home stations are allowed to work FD.

1941- The ARRL inadvertently forces a nationwide start time by notifying the FCC of the Field day period and the FCC communication 73-D references a single start time for all ham stations for Field Day from 4pm EST June 7th to 6pm EST June 8th.

1942-1945 All Ham activity ceases.

1946-Field day returns and adds a VHF only category

1948- 11 meters (now the CB band) is added for a Field Day Band. FD is shortened to 24 hrs. Battery and Emergency power categories are added.

1949- Mobile category added to FD.

1950- The modern day FD classes are established. The circle is increased to 1000'

1951- To encourage home emergency power, a home emergency power class is added Class D while home stations off power mains are class E.

1957- Simultaneous starts return, starts 4 pm EST and ends 4pm PST the next day. Anyone can operate 24 of the 27 operating period. 10,000th ham participates.

1963-ARRL rules that a FD site can only use one callsign.

1968- Setup within the 27 hr period is mandatory and the start time is moved to 1900z. All home stations are moved to Class D.

1969- The setup rule is hugely unpopular so ARRL changes the rule so that if you wait to set up you can operate the whole 27 hrs, otherwise you can only operate 24 hrs of the 27.

1970- A free Novice station is allowed. Starting time is moved to 1800z.

1972- Battery results are listed separately.

1973- Repeater rule is waived for satellite contacts and a 50 point sat bonus is included for the first time.

1974- A 100 point bonus is added for making contacts solely by natural power. 15 minutes rule for band changes is instituted.

1975- the Explosion of SSB leads the ARRL to institute a 2X multiplier for CW contacts.

1976- 10,000 qso mark is broken by W1VV/1

1977- The natural power bonus disappears and techs are now allowed to operate the Novice station. The 2X CW rule becomes permanent.

1980- RST is replaced with category and class for the exchange. Setup time is changed again, nothing can be set up before the 24 hr period. natural power comes back as a 100 point bonus. Sat and FD message bonuses increase to 100 points.

1981- Due to the popularity of packet radio, a 100 point bonus is instituted for one packet QSO and the repeater rules are waived for qso's through a digipeater. The Yankee Clipper Contest Club W2RQ turn in an impressive 11,201 qso total for Field Day.

1984- power multiplier is changed from 200 watts to anything less than 150 watts.

1993- Due to the influx of Technicians, a 100 point bonus is added for making 10 VHF/UHF contacts and a free VHF/UHF station is allowed class A and B.

1994- The modern FD record is set by K6CAB 15A by getting 3450 QRP QSO's for a total score of 30,150

1998- Free packet station and bonus are eliminated, but RTTY/PSK31 are added as a 3rd FD mode. The 100 point bonus for VHF/UHF stations is deleted.

So that is the history of Field Day. We've come a long way!

~ Credit: December 1999 QST

### SARC Field Day Videos on YouTube

1985: SARC had its 1985-1988 Field Days on McKee (Monkey) Mountain near Chilliwack. It was a crude set-up by today's standards but everyone had an enjoyable time.

<https://www.youtube.com/watch?v=jF385teFNAU>

1986:

[https://www.youtube.com/watch?v=kampKC\\_DDaA](https://www.youtube.com/watch?v=kampKC_DDaA)

1987: <https://www.youtube.com/watch?v=0e7sCDyE6EI>

1988: <https://www.youtube.com/watch?v=JnVru38UAco>

2010: SARC paired with SEPAR and LARA for Field Day at Campbell Valley Park.

<https://youtu.be/yKwbgwORc9s?list=PLzqTnqobbifpFyJ8RqTE6kiO2mUP09I5Y>

2012: SARC started to use the former Grandview School grounds. Except for 2016, this location has been used ever since.

<https://youtu.be/ylxKYvpylpo?list=PLzqTnqobbifpFyJ8RqTE6kiO2mUP09I5Y>

and

<https://youtu.be/acyDlByalHk?list=PLzqTnqobbifpFyJ8RqTE6kiO2mUP09I5Y>

2014: Our (in)famous 'That's How Field Day Goes' video: [https://youtu.be/F8lFIVGli\\_Q](https://youtu.be/F8lFIVGli_Q) and <https://youtu.be/27HU9NIZbys>

2015:

<https://www.youtube.com/watch?v=anevwcyjZl8&t=10s>

2016: Field Day was at the OTC

2017: Back at Grandview School grounds. We used a drone at Field day!

<https://photos.app.goo.gl/DJUQyqgO5ovAPz8h1>

2018: See you at Grandview!

<https://goo.gl/maps/XozXV6qJGWm>



May 2018

## Radio-Active

John Brodie VA7XB

### *Profiles of SARC Members*



*John Brodie  
VA7XB*

*Editor's note: in the absence of a willing candidate for Radio-Active this month, John, on short notice, volunteered to prepare an auto-bio.*

John Brodie (now VA7XB) was born in New York in 1944, the second oldest of four children. His father was a British citizen who had worked in China and Japan most of his adult years. His mother was an American schoolteacher in Sendai (the location of the 2011 nuclear reactor disaster); they married in Japan in 1940. John's father was incarcerated by the Japanese on the day of Pearl Harbor (December 1941) accused of being a spy (which he was not) but repatriated a year later under an exchange of non-military prisoners. He was immediately hired by the famous Sir William Stephenson ("A Man Called Intrepid") the head of British Security Coordination (a division of MI6) to work at Rockefeller Centre in NYC where he was involved in preventing sabotage of Western shipping in South America. He later transferred to the BSC group in Washington DC, where the Japanese military code was successfully broken. John has a blurry group photo of his father with colleagues at Camp X in Osawa, where agents were trained.

For several years after the Pacific war ended, the family lived first on Long Island, NY then moved to Stamford, CT where John recalls an idyllic rural environment for a boy of 8 years. One of John's lasting memories of that time was when his grandmother took him on the train to NY City to see a performance at

Radio City Music Hall. In 1952, John's father was hired by the Swedish Johnson Line to manage their Vancouver agency, so the entire family relocated to Canada (incidentally, it was later determined that Brett Garrett VE7GM's father worked in the same office). A notable experience at age 15, was John's summer job as "deck boy" on a Norwegian freighter, the "Frances Salman", which carried newsprint and pulp between Nanaimo, Port Alberni, and Powell River to the California ports of Long Beach, San Francisco and San Diego.

John received his education first at Prince of Wales High School in Vancouver, then in 1962 entered UBC to begin a 7-year program of Metallurgical Engineering, completed in 1969. It was in High School that John became interested in ham radio as part of a science project - a friend offered to provide a needed capacitor and he was hooked. John's first call sign was VE7BFE which he achieved in 1960, after which he earned his advanced ticket in 1961. He was then off the air for nearly 40 years until about 2000 when, in anticipation of retirement, he obtained a new callsign (VE7JBB and, later VA7XB) and joined SARC, a club at that time having less than 2 dozen members.

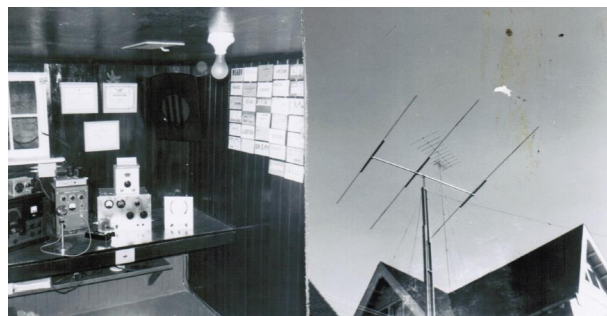
Upon graduation from UBC and newly married to Heather, John was retained by Cominco (now Teck Corp.) at Trail BC where he was employed as technical development engineer in the lead smelter and zinc plant. This group was

responsible for applying processes developed in the research lab to full-scale plant trials. In 1961, Cominco installed a fluid bed zinc roaster which employed, for the first time, supervisory control under a huge IBM 360 computer (it turns out that Stan VA7NF was intimately involved with the programming of the computer and spent time in Trail at the same time, but John did not learn this until recently). The family lived first in Trail, then later in Rossland, just a few miles away from the famous Red Mountain ski resort. His 2 sons were born in Trail. John followed this with a few years in Victoria as head of the Mining & Metallurgical Section of what was then called "Pollution Control Branch". Then for the next 10 years he was a consultant specializing in regulatory matters and environmental management of (mainly) gold and silver mines which led to assignments in Canada, the US, Australia and South America.

In 1988, John joined BC Rail (formerly PGE) as environmental manager, where he remained until 2004, at which time BCR was bought out by Canadian National Railway. John left CN almost immediately, joining BCR Properties Ltd. (BCRP), the real estate arm of the former BC Rail. He works part time with BCRP to this day managing cleanup of contaminated sites, vegetation control on former railway properties including the Roberts Bank to Cloverdale railway, and some legacy legal issues.

John has held a variety of positions on SARC's Executive, and was President for several years. He is currently a Director and VP of SARC. His radio interests involve CW, contesting, and satellite communication. In the early days, he attempted to construct a 100% home built station but never completed it before being overtaken by the demands of education, marriage, family and career. He is now content to enjoy radio club activities, occasional travel, and family activities with his 2 boys and 4 grandchildren. John is proud of the way SARC has grown over the years into a large, active club that places priority on introducing individuals to ham radio and training them to become fully proficient.

~ John VA7XB

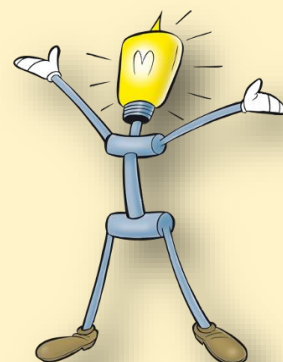


## Membership Fees Are Due

Please note that our new fiscal year is rapidly approaching and your annual membership is due. Payment may be made at any monthly meeting, at the Saturday coffee meeting, by mail or via PayPal. Details on payment options are available at our website at:

<http://ve7sar.net/join.html>

Only members in good standing may vote at the June 13<sup>th</sup> AGM. This requires that annual dues for 2018-2019 be paid prior to or at this meeting.



May 2018

# Surrey Emergency Program Amateur Radio



## The SEPAR Report

Roger Andrews VA7VH - SEPAR Coordinator

### *SEPAR Society Changes*

On Saturday May 5 the SEPAR Society had an Executive meeting. In yet another show of support from the Surrey Fire Service, Deputy Chief Mark Griffieon attended the meeting.

While we went over some old business, the major agenda item was a discussion about the future of SEPARS (the society). As many of you are aware from speaking with me, I am a proponent of dissolving the Society and returning to the structure that existed before the formation of the Society. The Society was formed mainly to elicit Gaming Grant funds. There was initial success and that is where the trailer and it's equipment, and the EOC radios came from. Over the past few years there has been no Gaming Grant application successes. The rules changed to prohibit any government organization from obtaining such funds. SEPAR is a part of the City of Surrey and has City assets. Those assets seemed to be used by the gaming folks to show that we are a government organization. Personally, I agree with that view. Regardless of whether you agree with that or not, it's what the gaming people believe and we are unlikely to ever be able to obtain funds again.

The City of Surrey is committed to supporting us as their Amateur Radio Emergency Communications Team (ECT). That is clear from their renewed commitment to training and support.

Moving forward the Executive has passed a motion to move towards dissolving the society. The membership will need to approve such a move and I will call an AGM once we answer some outstanding

question and get some clarification on what this will all look like, so that a clear proposal can be put to the members.

### *Some Notes About Volunteering*

In the past weeks SEPAR had 2 additional days of activation for the City of Surrey. May 16 and 17 were variations on the May 13 activation. On the 13th we canvased the Bridgeview neighbourhood in Surrey handing out pamphlets advising residence of potential flooding. May 16 and 17 we did the same, but for the businesses in the area

Deputy Chief Griffieon advised me that SEPAR had the most members of any of the SEP volunteer groups. Both he and Assistant Chief Morris have asked me to pass along a thank you to all those that attended.

Every one of these people gave some sort of sacrifice to help out. Some gave time that they normally would have been working, some gave time away from their family (May 13 was Mother's day), and some postponed holidays. No matter the sacrifice it shows that SEPAR is still a valuable part of the Surrey Emergency Program with committed members.

This volunteer event brought some questions from non-SEPAR members. Can I participate, was the big question. The answer is of course that Surrey is happy for volunteers.

There are requirements when volunteering with any form of government agency. Any organization is required to make sure that they provide a safe environment for their volunteers. Ideally that should always



include liability insurance coverage where those volunteers might injure themselves. With governments, that insurance is not optional but is a policy requirement. SEPAR, during this last activation, made every attempt to make this some sort of communications event for practice. However, it was primarily a walking event, going door to door and entering peoples yard. There is always the possibility of an injury in such cases. People don't always maintain their properties, steps could be broken, toys can be laying around on sidewalks and then there are dogs. Usually, but not always, every mans' best friend! There are lots of opportunities for injury. This activation was also an EMBC (Emergency Management BC) event, and EMBC also has requirements for it's volunteers.

All volunteers for Surrey must complete a City of Surrey application stating that you agree to abide by the rules the City puts forth. As well, volunteers must complete an EMBC application. This is where the liability insurance comes from. EMBC also indemnifies volunteer for equipment losses such as a cell phone lost or driven over.

If the "Big one" hits, will we have to sign these forms before volunteering? Yes, nothing changes. The possibility for injury is even greater during disaster or emergencies. Of course if you are volunteering as solely a radio volunteer from your home, liability isn't such an issue.

### **Surrey Frequencies Update**

Since our activation for the freshet many of you have asked if I know what the predictions are. I looks like things are settling down and I've included a link to the Mission gauge on the Fraser river:

[https://wateroffice.ec.gc.ca/report/real\\_time\\_e.html?stn=08MH024](https://wateroffice.ec.gc.ca/report/real_time_e.html?stn=08MH024)

It's been suggested that we should try UHF occasionally on our weekly Nets. It's a great idea. I've also been asked by EMBC to provide them with our Frequency Plan. As I understand it we had been using the old single page band plan that was on the EMBC website. I've taken that, had a look at what other areas are using and made a few additions to our plan. I'd suggest that you make sure these are programmed into your radio and also suggest to future Net Controllers that we do the simplex test on a UHF frequency. The list is posted here.

Name	Frequency	Offset	CTCSS
VE7RSC (Primary Repeater)	147.360	+600	110.9
VE7RSC (Secondary Repeater)	443.775	+5.0	110.9
VE7RPT (Primary Reg'l Repeater)	146.940	-600	
Optional 136.5 Receive tone			
Simplex 1	(VHF) 146.550		
Simplex 2	(VHF) 147.420		
Simplex 3	(UHF) 446.550		
Simplex 4	(UHF) 447.425		

### **Other frequencies in the Greater Vancouver area:**

Primary:	Coquitlam/Abbotsford	146.430
Primary:	Inter-Municipal Group 3	146.445
Primary:	Vancouver; Mission; Sec. Coq	146.460
Primary:	Kent-Mission; Sec. Richmond	146.475
Primary:	Inter-Municipal Group 2	146.490
Primary:	New West; Sec. Richmond	146.505
National	Calling / FM Simplex Group I	146.520
Primary:	North Shore; Port Coquitlam	146.535
Primary:	Bowen Island; Surrey	146.550
Intermunicipal Group 1 Coordination		146.565
Primary:	Lions Bay/Vancouver/Delta/Langley	146.580
Primary:	Port Moody; Sec: Burnaby	146.595
Secondary: Vancouver/Surrey		147.420
Secondary: Vancouver (UBC) / Maple Ridge		147.450
Primary:	White Rock/Chilliwack/N. Shore	147.480
Secondary:	Burnaby/Pitt Meadows	147.510
Primary:	Delta; Sec: Abbotsford	147.540
Primary:	Hope; Sec: Delta; Also EMBC	147.570



**Surrey Emergency Program Amateur Radio**

May 2018

### ***SEPAR Annual Competition***

Every Year starting this April 1 2018, we start a competition that active SEPAR members can participate in. The most active member will win an MD390 DMR Radio package. You can checkout pictures of the radio and see the rules on <http://va7.ca/radio> (an interim website).

### ***Weekly Nets***

Every Tuesday evening at 1930 hrs (7:30pm PDT) we start a ½ hour NET on a local repeater provided by the Surrey Amateur Radio Club (SARC) on 147.360 MHz +600kHz and a tone of 110.9. There may be a simplex test or a test NTS message transmitted during the NET at the Net controllers discretion. This is an excellent opportunity to practice sending and receiving this form of messaging. Besides, it adds a little spice to the regular check-ins on the net. Please join us. NTS Radiograms can be found on the SEPAR website here, or, if you would like a fillable PDF that you can enter on your computer, you can get it from here.

Thursday nights at 19:30 hours, This Net has changed! We are no longer doing a regular 2 meter simplex Net on this night. Any plans for Thursday night will be announced on the Tuesday before. This night will now be used for optional tests. For example NTS Digital exchanges, 6 meter, 2 meter 60 cm and 220 Nets. If someone wants to do a particular net on a Thursday, then please announce it on the Tuesday before.

~ Roger VA7VH  
SEPAR Coordinator



On behalf of the Surrey Emergency Program I would like to thank everyone who made it out to the flood notification exercise. It was an absolute pleasure to work with every one of you. Your professionalism and enthusiasm made the day a complete success. It was a challenging call to action with such short notice and on Mother's Day. We finished over 700 houses and talked to over a 1,000 residents in record time! It is great to know that when the community requires our response that we can do so quickly and in the numbers to get the job done. The Surrey Emergency Program values the partnerships it has with each of the groups that were there on Sunday.

Shelley Morris | Assistant Fire Chief - Emergency Planning & Community Engagement

## Wire Snippets

### Show features ham radio

The National Geographic Channel have produced a guide to amateur radio to support their recently released film Before Mars. The short film Before Mars provides background on two of the lead characters in the upcoming global event series Mars.

Read the Ham Radio Guide at

<http://channel.nationalgeographic.com/mars/articles/a-guide-to-ham-radio/>

Watch the 33 minute National Geographic Channel short film Before Mars at <http://channel.nationalgeographic.com/mars/videos/before-mars/>

Build a PowerPole polarity tester: <https://youtu.be/BnIsiaZ001A>

We featured information on **Near Vertical Incident Skywave** (NVIS) antennas last year. It is an often overlooked source of Field Day points. Here is a link at one successful design:  
<http://www.vcars.org/tech/NVIS.html>

### Social Reminders

The Surrey weekly social gathering is on Saturday at the Kalmar Restaurant at 80th and King George Boulevard between 8 and 10:00 am. You don't have to be a SARC member to participate. Bring your significant other, bring your family, see old friends and have fun.

### July and August Meetings

We have no monthly meetings during the summer but we can still get together. On the second Wednesday in July and August, which would be meeting nights, we will convene at the OTC for a social evening and some radio or instruction time starting at 7pm each evening.





# SURREY doorsopen

DISCOVER THE STORY BEHIND EVERY DOOR

**FREE EVENT**

SATURDAY JUNE 9, 2018 11am-4pm

Former Surrey City Hall North Annex 14245 57A Avenue Surrey



We provide emergency communications services to the Surrey Emergency Program. Come and explore the exciting world of Amateur Radio



# SURREY doorsopen

DISCOVER THE STORY BEHIND EVERY DOOR

## SARC and SEPAR Members

Please come and assist at this event if you are able.  
We would like to put on a great display of Amateur Radio capabilities in Surrey and highlight the value of the Amateur Radio Operations and Training Centre (OTC)



Explore 30 venues offering a behind-the-scenes look into Surrey's rich heritage, art, culture and architecture.

<b>CLOVERDALE</b>	A&T Equestrian   Cloverdale Library   Fraser Valley Heritage Railway   Harness Racing BC   Honeybee Centre   Surrey Animal Resource Centre   Surrey Archives   Surrey Fire Service Hall No.8   BC Vintage Truck Museum
<b>NEWTON</b>	Surrey Amateur Radio Training & Operations Centre   Surrey Operations Centre
<b>SOUTH SURREY</b>	Historic Stewart Farm   Semiahmoo Arts   South Surrey Operations Centre
<b>WHALLEY</b>	Bear Creek Park Train & Mini Golf   Central City Brewers & Distillers   Chuck Bailey Recreation Centre   City Centre Library   City Parkway Studios   Di Reggae Cafe   Forsyth Park   Health & Technology District   Maranatha Canadian Reformed Church   Sprite Multimedia   St. Constantine & Helen Greek Orthodox Church   Surrey Biofuel Facility   Surrey City Hall   Surrey Nature Centre   Ukrainian Orthodox Church of St. Mary   Viva Care Medical Clinic

**WIN** great prizes by dressing up for a selfie & entering the Photo Contest!

Visit [surrey.ca/doorsopen](http://surrey.ca/doorsopen) for details of venues and to participate in our online survey!

- Fun activities for all ages
- Guided tours, entertainment & more!



#surreydoorsopen



8100-131-0110

**CITY OF SURREY**  
the future lives here.



May 2018



## Surrey Doors Open

A June 9th Special Event at the OTC



We have applied for, and been accepted as a destination for the **Surrey Doors Open** program scheduled for Saturday, June 9th from 11am to 4pm at the OTC.

Surrey Doors Open is a one day event for organizations to invite community members to “discover the story behind every door”. This free event offers fun activities

for all ages, behind-the-scenes guided tours, entertainment, hop-on-hop-off transportation and more! Almost 5,000 visitors attended last year.

If you have any questions, or require further information about this community event, please email [doorsopen@surrey.ca](mailto:doorsopen@surrey.ca) or download and print the [Surrey Doors Open Event Guide](#).

### Surrey Doors Open Giveaway Contest

Let us know which venue(s) you are most excited to visit at this year's Surrey Doors Open! Posts must be submitted via Surrey Doors Open Facebook Event Page, @CityofSurrey Twitter account and @thecityofsurrey instagram account.

Contest begins 10am on May 11, 2018 till 11:59pm on May 18, 2018.

Review [contest details](#).

### Capture our City Photo Contest

Post your Surrey Doors Open photos and share your unique stories and experiences on Instagram or Twitter for a chance to win great prizes using #SurreyDoorsOpen or email your photos to [doorsopen@surrey.ca](mailto:doorsopen@surrey.ca). Submissions will be accepted from 11am Saturday June 9, 2018 until 4:59pm on Friday June 15, 2018. Winners will be accounted on Tuesday, June 19, 2018.

Review [contest details](#).

### Tell Us What You Think Contest

Did you have a fun filled day at Surrey Doors Open this year? Let us know all about your experience by entering our Survey Contest. Fill out a short questionnaire about your experience at Doors Open venues; you will be automatically entered to win a great prize!

Contest begins 11am on June 9, 2018 till 3:59pm on June 12, 2018.

Review [contest details](#).

There is also a ‘selfie’ contest encouraging visitors to take a photo of themselves at a Doors Open activity.

John VE7TI is coordinating this event on behalf of SARC and SEPAR. As in previous community demonstrations of Amateur Radio, most recently the Scout's JOTA event, we intend to offer several stations geared to all ages. The planned stations:

1. Basic intro to radio, what it is, how it works, how Amateur Radio fits in.
2. Morse code practice, learn what CW is, practice sending their name on a practice key ..
3. Echolink, IRLP or Digital messaging to somewhere else on the globe.
4. Handheld communication between two stations.
5. If we are fortunate enough to have appropriate weather, we plan to hide an 80m fox. ARDF principles and applications will be explained and visitors given an opportunity to locate the hidden fox.
6. HF Contact - Hopefully propagation will be favourable.
7. Static Display of Communicator covers and a looped demonstration video/PowerPoint

A number of SARC and SEPAR volunteers are needed as presenters, guides and operators. If you are available, please contact John VE7TI at [communicator@ve7sar.net](mailto:communicator@ve7sar.net).





## More Surrey News

### Some Contest Accomplishments

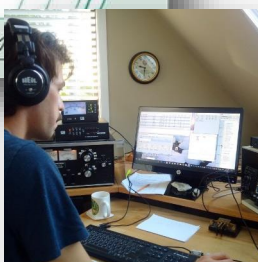
I've written in an earlier edition of The Communicator about one of our members, Robert VA7FMR and his desire to be active on CW. Robert has developed a method to copy and send CW using his computer and readily available software. I'm hoping he will provide a presentation on this at a SARC meeting. In the meantime, I received this email and attached certificate. Well done Robert... and top in Canada to boot!

Hi John,

I thought you might want to put this in the Communicator as an example of what a person can do without knowing CW. I entered the contest and used the Function key responses in N1MM+. I could not get the CW to work but I got it going 45

*minutes before the end of the contest. I wonder what I could have achieved if I had worked the whole two days of the contest? I came first in Canada in my category.*

73,  
Robert VE7FMR



May 2018



## Our Spring SARC Basic Licensing Class

We have just completed yet another Basic Amateur Radio licensing class. There were 7 instruction sessions plus the Antenna Workshop and exam night.

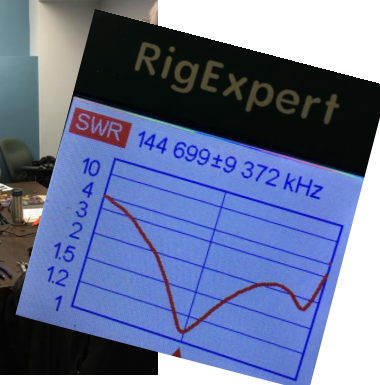
This year the Antenna Workshop was held at the OTC over two Saturday mornings, a result of the number of students participating. It was also a pleasure to have access to our new Antenna Analyzer. The RigExpert is a pleasure to use and provides a graphical output as shown in the photo below. This made it relatively easy to troubleshoot problems and apply fixes, a useful exercise as it provides the students some hands-on experience building a dual band antenna that they get to take home and use.



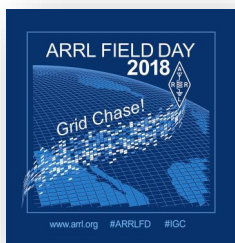
A bit of friendly competition usually surfaces and this class was no exception as each tried to get their SWR just a fraction lower. The winning antenna was made by one of our female students and had an SWR at 146 MHz of 1.05:1, pretty darn good!

We also discovered that good coax cannot be judged by its cover. We had purchased coax with ends already attached. The theory was that we could cut them in half and have two ready made feedlines. Unfortunately the coax braid turned out to be aluminum—very difficult to

solder. A couple of antennas had been assembled and displayed inconsistent SWR. The aluminum braid, with a good mechanical, but poor electrical contact with the antenna element was the culprit.







## Field Day 2018

Sheldon Ward VA7XNL

### *It's Three Weeks Away*

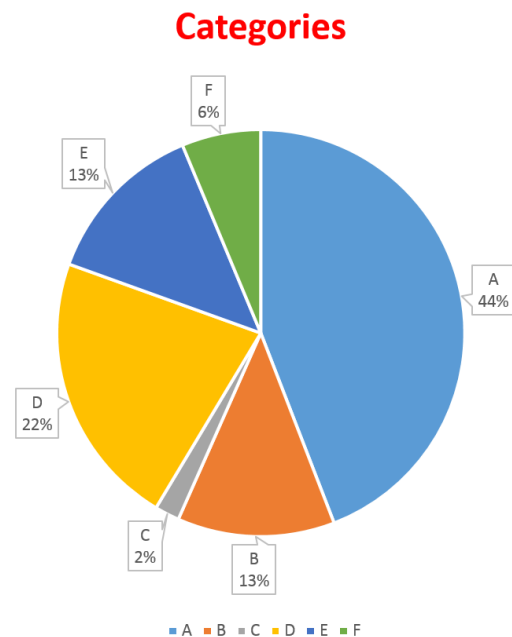
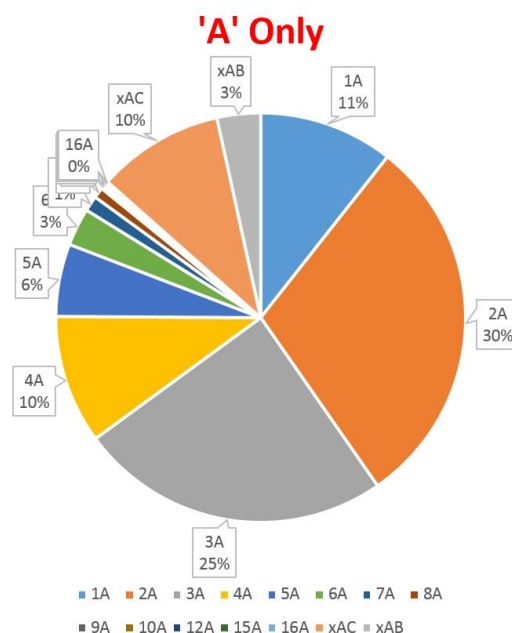
We are only 3 weeks away from Field Day 2018. At our last FD meeting we discussed some more antenna options. We are hoping to have 4 antennas. The layout is a bit more to the west of the field to accommodate all the antennas but the stations will be in a similar layout to the 2017 setup. As always, our "Big Foot" tower will have the TH7 tri-bander for 10, 15, and 20 metres. The OCF wire will provide 40 and 80 metres, the same as last year, but may be slightly relocated. We plan to setup the 40/80 metre bobtail curtain antenna also. While we hoped to have used it in previous years, for various reasons it didn't get set up so hopefully we will have the manpower this year. And for the first time (at least since I have been a member) we will also have a 160m antenna. This will be setup a little to the south in an inverted "V" style.

That is going to be a fair bit of work to setup those antennas so hopefully club members will be able to help out. Many hands make light work.

Running 3 radios with generator power puts us into the 3A category. This is usually the second largest group with about 25% of the stations last year running emergency power (class A) in this category. (See charts)

I also proposed at our club monthly meeting that a second station could be setup and run from our OTC. With an alternate club call sign this would be for those not wishing or able to work in the field this year and would likely operate as a 1D or 2D station. However due to lack of interest this will not happen.

We will have further Field Day discussion at our June 13th AGM. I hope to see many of you there.





May 2018



## KB6NU's Column

Dan Romanchik, KB6NU

### *Is The Internet, Millennials Or FT-8 Killing Ham Radio?*

Amateur radio bloggers love to write about the demise of amateur radio. To wit, we have:

- K0NR's Is the Internet destroying amateur radio? (<http://www.k0nr.com/wordpress/2017/11/internet-destroying-amateur-radio/>)
- N0SSC's Millennials are killing ham radio (<http://n0ssc.com/posts/583-millennials-are-killing-ham-radio>)
- PE4BAS' Is FT-8 damaging amateur radio? (<https://pe4bas.blogspot.com/2018/04/is-ft8-damaging-hamradio.html>)
- NZ0T's Did Joe Taylor K1JT Destroy Amateur Radio? (<http://www.ei5di.com/jt.html>)

Of course, none of these posts are really saying that the internet, millennials, or FT-8 has killed amateur radio. What they are saying is that all of these are changing amateur radio as we know it. Well, duh, the way we live our lives changes every day. Why should amateur radio be any different?

For example, Bob, K0NR, discusses how the operation of remote stations is changing the game of DX. Can you really claim that you worked a DX station if you rented time on a super station? I've written about that topic, too (<https://www.kb6nu.com/dx-advisory-committee-wants-to-put-the-screws-to-remote-operation/>).

There has also been much written about how FT8 is changing the amateur radio game. One blog post (<https://ve7sl.blogspot.com/2017/10/160m-ft8-end-of-era.html>), talking about the effect of FT8 on 160m operation, even goes so far to say that this is the "end of an era." On DX World, the results of the poll, "FT8 - Damaging to Amateur Radio?" (<https://dx-world.net/yes-or-no-a-poll-on-ft8/>) show more than half of the respondents think that FT8 is damaging amateur radio.

I specifically used the word "game" in the previous two paragraphs because that's exactly what's changing. The physics of amateur radio certainly isn't changing. Our transmitters are still generating electromagnetic waves like they have been for decades, and on the HF bands, anyway, those radio waves are bouncing off the ionosphere just as they have been for more than the past 100 years.

What's changing is the human component. By that I mean what's changing is how we think people should participate in the hobby. The hams that are complaining that the internet or millennials or FT8 is killing amateur radio are really just complaining that people aren't participating in amateur radio the way they want them to participate.



*Our transmitters are still generating electromagnetic waves like they have been for decades...*

Here's where we talk about millennials. In his blog post, Sterling, N0SSC, suggests that setting up remote stations is one way to engage young people. He writes, "I believe that remote operating, and other internet-assisted means of ham radio operation, are critical to youth engagement."

He's also big on an idea he calls "ham radio hackathons." He writes,

"A hackathon isn't a coding competition. It's explained well in this Medium article (<https://medium.com/hackathons-anonymous/wtf-is-a-hackathon-92668579601>). It goes even further than that, not limited to coders and engineers, but open to thinkers, doers, philosophers, system engineers, math people, teachers, students, artists, stakeholders... anyone with an interest in solving a problem with technology."

I support both of these ideas, but I think that millennials (and, to be fair, it isn't just millennials we're talking about here, but any newcomers to the hobby) need to step up and get these things going. I don't think it's my job to try to get kids interested in amateur radio. I don't even know if that's really possible. What I can do, however, is be

there to encourage and support kids (and anyone else that expresses a sincere interest in amateur radio).

For example, I'm not sure how fruitful it would be to set up my station to be remotely operable and then saying to some kids, "Hey, come and operate my station." What I think would be more fruitful is to say to a kid, "Hey, come help me set up my remote control station, so that we both can use it." Then, it turns into a learning situation, and we both gain from the exercise.

The same kind of thing has to happen with ham radio hackathons. The motivation has to come from the ground up, not the top down. I do hope that this idea gets off the ground, though, and I'm standing by, ready to support this effort however I can.

I think that millennials (I'm really getting tired of that term, by the way) need to grab the bull by the horns and take amateur radio in the direction they want it to go. Feel free to kill amateur radio as we know it. Make it better!

~ Dan KB6NU  
Reprinted with permission

*When he's not trying to figure out which way current flows, Dan blogs about amateur radio at [KB6NU.com](http://KB6NU.com), teaches ham radio classes, and operates CW on the HF bands. Look for him on 30m, 40m, and 80m. You can email him at [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com).*

## Bathtub CW Key Wanted

Rino Deschênes VE9VIC <[ve9vic@hotmail.com](mailto:ve9vic@hotmail.com)> contacted The Communicator:

I am looking for a bathtub Morse key, the black model, but I am open to the brown model.

If you have one that you would like to give a new home to, please contact Rino directly.



May 2018

## The Contest Contender

Andy Faber AE6Y

### Phone Contesting Tips For DX Contests



*Ok, so you have a clean signal and are calling on frequency, now how do you get the information through...*

*A timely piece for Field Day, the proper use of a phonetic alphabet can be very helpful when working phone under marginal conditions. Bob KONR has written a basic article on phonetics over at [HamRadioSchool.com](http://HamRadioSchool.com), so you might want to review that. Bob also found an article by Andy/AE6Y on some tips and tricks to use during contests. He does a super job of explaining why the ITU phonetic alphabet isn't always the best choice.*

This article is prompted by the recent WPX SSB contest, in which I worked thousands of guys from Aruba as P49Y, which engendered much reflection (and teeth-gnashing, to be sure) about how U.S. hams can be best understood from the DX end. I'm not addressing this to relatively clear-channel domestic contests but to the situation where you are trying to get through to a DX station that may be hearing a pileup, plus noise, ear-splitting splatter from adjacent stations and all of the other sonic annoyances that make many contesters prefer CW. If there is no pileup and you know the DX station can hear you completely clearly, then you'll get through regardless, but if not, here are some suggestions:

First, be sure you are calling on his exact frequency. In CW contests, it can be helpful to separate yourself from the pack by calling off frequency, but that's not true in SSB. Off-frequency stations sound distorted and are hard to understand. The DX station may well come back to a weaker, but more intelligible station that is on frequency,

even if you are louder. In order to work you, he has to figure out which way to adjust the RIT, and then go ahead and do it. A tired operator on the other end may just not bother, until he has worked everyone else.

Second, make sure your audio is clean. It is so much easier to understand clear audio, even if it is weaker than a louder, distorted signal. KH7XS mentioned in his 3830 posting that this year there particularly seemed to be over-processed signals coming from South America, and I noticed the same thing. It used to be that the Italians who were the worst offenders, but they seem to be better now. This weekend, the Cubans were particularly hard to understand. The prize for the easiest audio to understand goes each contest to the hams from the British Isles. The G's, M's and their derivatives invariably have very clean (and usually nicely treble) audio that can be understood even when the signal doesn't budge the S-meter. On several occasions I chose a weak but clear Brit over a loud, but distorted, competitor.

Ok, so you have a clean signal and are calling on frequency, now how do you get the information through, both your callsign and your contact number (for WPX)?

Here are some tips:

If you are loud enough and have an easily recognizable call, you can skip phonetics. So this weekend, when K1AR called, he was easy to pick out, same for K3UA, K3ZO, N6AA, and a few others. But for most guys, and when in doubt, use





phonetics. Endless bandwidth has been expended on the subject of phonetics, and people have differing opinions on the topic, but here are my thoughts from being on the DX end:

The first thing to understand is that the standard, “recommended” international alphabet works dismally in marginal conditions. The words are too short, and some don’t have unique sounds. Generally speaking, the one-syllable words just get lost, while the two-syllable words are better, and the longer ones are even better.

Thus, one-syllable words like “Fox”, “Golf” and “Mike” are horrible. Some of the two-syllable ones are OK (e.g., “Hotel” and “Quebec”), but others, such as “Alpha” and “Delta”, or “X-ray” and “Echo”, “Kilo” and “Tango” sound very similar, so are easily confused. I worked a guy with the suffix XXE, and had to get a number of repeats until he finally said “X-Ray X-ray Ecuador,” which did the trick.

There are two basic cures for these problems. The first is only to use these crummy phonetics the first time as a trial. If the DX station asks for a repeat, say your call twice, once with the standard phonetics and once with different ones. Don’t just keep repeating your call the same way. Something in either the way you say it or the way the DX hears it is creating ambiguity. If you keep repeating the call the same way it may well be that part of it is just hard to decipher, and it may not get any easier.

If the DX station is a good English speaker then custom phonetics may work, such as “King George Six...” In fact when I thought a KK4 station was a K4, he used a very effective phonetic, “King Kong Four...” WA2JQK uses “Jack Queen King” in domestic contests, but that won’t work well for non-native speakers. The Wyoming station N7MZW uses “Many Zebras Walking” sometimes domestically, but I noticed he was using normal phonetics in WPX.

The second approach is to switch to the geographical phonetic alphabet. This features longer and more distinctive-sounding words, which are much easier to understand. For example if your suffix is, say, HLF, then you can say “Hotel Lima Fox,” then try “Honolulu London Florida.” When I give my call with last letter “Yankee” and get asked for a repeat it works much better to say “Last letter Yankee, last

letter Yokohama.” Many of the geographic phonetics work particularly well for speakers of Romance languages like Spanish and Italian (e.g., terms like “Guatemala”, “Nicaragua”, and “Santiago”). There are a few letters for which there are not good geographic equivalents. Obviously, “X-ray” is one of them. For “Echo”, “England” is sometimes used, but “Ecuador” is better. Although “London” and “Lima” are both geographic terms, “London” is much better. And “Denmark Mexico” is many times superior to “Delta Mike.”

Numbers in the callsign can also cause trouble. What if the station comes back to “K3” instead of “K6”? In general, just try to repeat the number, but if he still doesn’t get it, you can try counting, e.g. “Kilo Six, 1, 2, 3, 4, 5, 6.” Or for us West Coasters, “Kilo Six in California, West Coast” can be useful.

Which brings me to the subject of numbers in exchanges like WPX. I commented in a 3830 post a few years ago that the English numbers that everyone uses are just too ambiguous, most of them being plain too short. I recommended using some Spanish numbers, like “cuatro” and “ocho”, but that suggestion went nowhere, so I hereby drop it, unless you are trying to get through to a native Spanish or Italian speaker. In fact, in WPX, I just couldn’t understand a number from a CO8 station with terrible audio. I kept asking, “your number 424?”, “your number 242?”, “your number 224”, etc. Normally, one doesn’t confuse “two” and “four,” but this guy’s audio was driving me crazy and I wasn’t sure how well he was understanding me either. Finally I had the presence of mind to ask in Spanish, and when he said “dos cuatro cuatro,” he was in the log. If he had said that in the beginning I would have understood him in spite of his maladjusted audio.

One source of confusion for the DX station is not knowing how many digits there are, particularly later in the contest when a number can have 1, 2, 3, or 4 digits. There are a couple of ways to help. For example: suppose the DX station thinks he hears “[garble] six six” and he asks: “your number six six?” If your number is just 6, you can say to be helpful “Negative. My number zero zero six, number six.” Adding the word “number” in front of the digit indicates there are no missing digits. If your number is 66, just say “Roger, roger.” If it’s 56, say “Negative, number five six, fifty-six.” If it’s 256, say,

May 2018



*I hope these tips from the DX end are helpful*

“Negative. Number two five six, two fifty-six (or even “two hundred and fifty-six”). I know we were taught that it is incorrect to say “two hundred and fifty-six,” and we should just say “two hundred fifty-six,” but using the “and” makes it more intelligible.

In general, it’s usually best to say your number twice, in two different ways. For example it’s often hard to discern, “two three” from “three three”. So you can say: “five nine, two three, twenty-three,” since “twenty” and “thirty” sound very different. Similarly if your number is 15 and you say “one five”, that might be confused with “one nine”, so

say “one five, fifteen.” If it’s late in the contest and you might be expected to have a three-digit number you can say “zero two three, only twenty-three”. And if you have a one digit number late in the contest, it’s best to add zeros, saying, e.g., “zero zero nine, number nine”, not just “nine.”

I hope these tips from the DX end are helpful. They should be even more useful in the next few years, as declining sunspots forcing us increasingly into the QRM alleys of 20 and 40 meters.

## ***An FM Transceiver From An Unexpected Chip***

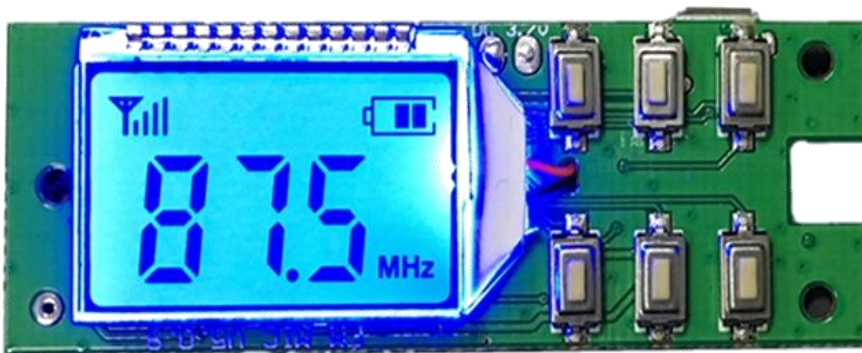


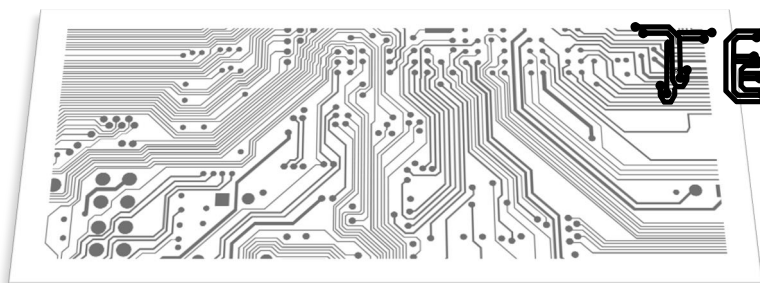
The Si47xx series of integrated circuits from Silicon Labs is a fascinating series of consumer broadcast radio products, chips that apply SDR technologies to deliver a range of functions that were once significantly more complex, with minimal external components and RF design trickery.

[Kodera2t] was attracted to one of them, the Si4720, which boasts the unusual function of containing both a receiver and a transmitter for the FM broadcast band and is aimed at mobile phones and similar devices that send audio to an FM car radio. The result is a PCB with a complete transceiver controlled by an ATmega328 and sporting an OLED display.

<https://hackaday.com/2018/04/22/an-fm-transceiver-from-an-unexpected-chip/>

- Our thanks to Stephen, G7VFX for spotting this item





Paul Lutus KE7ZZ

## SWR Assumptions

In the past I've talked about the Standing Wave Ratio, the SWR, and how it describes some of the characteristics of your antenna system. I say system because it's not just the antenna, it's the connection between your radio and the antenna as well. The coax or feed line, their length and how you've connected your antenna, all feature in the performance of the entire kit and caboodle.

As an aside, that's why measuring an antenna with an SWR meter at the bottom of the antenna, while you're bolting it to the top of your mast is likely to give you a different result when compared with the measurement performed at the radio.

During the week I was asked about how cutting an antenna changes the SWR. The question included a quote from the ARRL Single-Band Dipoles page which states:

"If you see that the SWR is getting lower as you move lower in frequency, your antenna is too long. Trim a couple of inches from each end and try again."

The person asking the question, Phil, wanted to know why he was seeing a different behaviour.

I've seen the same myself and until I had the benefit of an antenna analyzer it also made little sense to me. The reason it makes little sense becomes clear once you realize what assumptions you're working under.

When you look for antennas online, or when you buy one, often it comes with a lovely SWR graph. You'll see frequencies on the horizontal axis and SWR on the vertical axis. You'll likely see a lovely mostly horizontal line with a dip downwards at the frequency where you want to use this antenna.

The assumption you will almost automatically make, I know I did, for years, was that outside the graph the line continues on its merry way in both directions. That means that you're assuming that the SWR comes down in one place and the rest of the time it's high. If wishing made it so.

With the benefit of an antenna analyser you can graph the whole HF spectrum, and depending on the hardware, you might even be able to see VHF and UHF or higher.

One thing you'll immediately see is that the SWR is all over the place. It's up, and down, crazy lines, across the whole spectrum. You'll find enormous highs and some very interesting lows along the way.

It's one reason why I can use an antenna intended for the 10m band on the 2m band.

When you're making an antenna, like a single-band dipole, you might find yourself in a position where your antenna SWR is going up and down like a yo-yo around the frequency where you're wanting to be. The higher the frequency, the more likely that your trimming ends you in a different dip or a different high, outside the one that you're actually looking for.

One other comment. The ARRL quote which is talking about HF dipoles states that you should remove a couple of inches from each end. Let's take that literally, two inches from each end, that's 4 inches in total. Let's call it 10cm between friends. If you're trimming a dipole for 160m, you'll change the frequency by just over 1 kHz, but if you're doing this on 6m, then the same trimming will change the frequency by nearly 1 MHz and if you use that HF recommendation for 2m, the change is almost 6 MHz, so, trimming a couple of inches as the ARRL suggests will work for some dipoles on some frequencies, but might get you completely crazy results for other frequencies.

Now you know, the SWR isn't high across everything except where you care, it's all over the place and sometimes that helps, and sometimes it doesn't.

To listen to the podcast, visit the website: <http://podcasts.itmaze.com.au/foundations/> and scroll to the bottom for the latest episode. You can also use your podcast tool of choice and search for my callsign, VK6FLAB, or you can read the book, look for my callsign on your local Amazon store, or visit my author page: <http://amazon.com/author/owh>



May 2018

## Ham Radio Heads To The Moon

### AMSAT



**Chen Yue** with 435/2250 MHz feed for the 12m dish

DSLWP is a lunar formation flying mission led by Harbin Institute of Technology for low frequency radio astronomy, amateur radio and education

It consists of a pair of 47 kg microsattellites, launched into a lunar transfer orbit May 26th, and it will finally enter a 300 x 9000km lunar elliptical orbit.

Onboard each satellite, there are two VHF/UHF SDR transceivers to provide beacon, telemetry, telecommand, digital image downlink and a GMSK-JT4 repeater. Onboard transmitting power is about 2 W.

Wei Mingchuan, ham call BG2BHC reports the transmitters were activated soon after separation.

Satellite A transmits 500 baud GMSK with 1/4 turbo code on 435.425 MHz and 250 baud GMSK with 1/2 turbo code and precoder on 436.425 MHz, and satellite B transmits 500 baud GMSK with 1/4 turbo code on 435.400 MHz and 250 baud GMSK with 1/2 turbo code and precoder on 436.400 MHz, every 5 minutes by default.

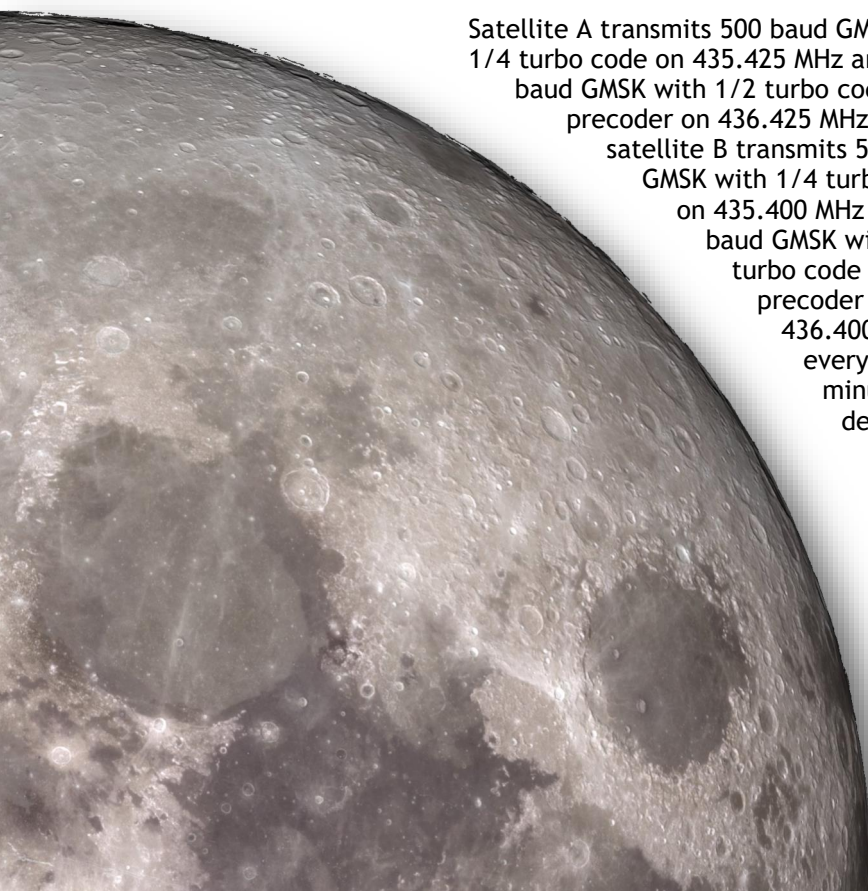
Each transmission lasts about 16 seconds. Radio amateurs in South America had the earliest chance to receive the signals from the satellites, then North America, Oceania, Asia, Europe and Africa. After deployment, signals from the DSLWP satellites were received by Edson Pereira PY2SDR, Nicolás Castro CD3NDC, Robert Mattaliano N6RFM and many other radio amateurs around the world.

Harbin Institute of Technology Amateur Radio Club expects other radio amateurs to join in this mission. They will prepare different QSL cards for different flight phase for amateurs successfully made QSO or received telemetry. Awards will also be given to the first 10 amateurs in each continent who successfully decoded the signals from the satellites, received the most number of packets, or received an image. Your participation will also help the team to get a better knowledge of the status of the satellites.

An open source decoding software based on GNU Radio to work with RTL-SDR and USRP is provided. Not difficult to change the grc files to support other SDR receivers. A small proxy software will send the decoded data to a server for real-time display.

Links for further information can be found at

<https://amsat-uk.org/2018/05/19/dslwp-satellites-lunar-orbit/>



## Two New Members —CQ Contest Hall of Fame

CQ Magazine



CQ magazine has announced the induction of two new members to the CQ Contest Hall of Fame, which honors those contesters who not only excel in personal performance but who also 'give back' to the hobby in outstanding ways.

CQ Contesting Editor David Siddall, K3ZJ, presented Hall of Fame plaques at an induction ceremony held at the annual Dayton contest dinner on May 19th.

The 2018 inductees to the CQ Contest Hall of Fame are:

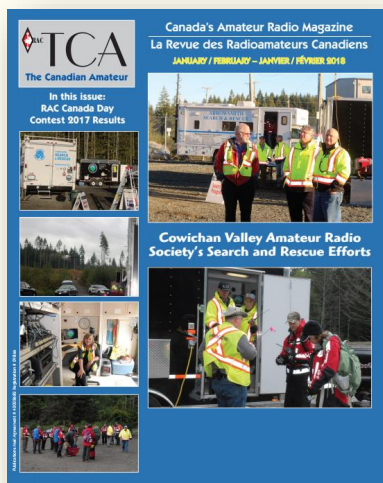
Andy Blank, N2NT - Nominated by the Frankford Radio Club, Andy has been the director of the CQ World Wide 160-Meter DX Contest for the past decade. A world-class contester with wins stretching back to 1979, Andy has also competed in five Word Radiosport Team Championship (WRTC)

competitions and was Director of Competition for WRTC-2014, held in Massachusetts. He is also a member of the advisory board of the World Wide Radio Operators' Foundation (WWROF).

Tom Wagner, N1MM - Nominated by both the Yankee Clipper Contest Club and the Northern California Contest Club, Tom is best known for his development of and ongoing upgrades to the N1MM Logger, which has become the world's most popular contest logging software. The program supports more than 240 different contests, multiple operating modes and integration with any number of transceivers and station accessories. Tom now leads a team of developers who are developing further enhancements and were recognized with the YASME Excellence Award in 2015.

The CQ Contest Hall of Fame was established in 1986 to recognize those amateurs who have made major contributions to the art of radio contesting.

This year's inductions bring the total number of members of the CQ Contest Hall of Fame to 71.



The Radio Amateurs of Canada (RAC) magazine 'The Canadian Amateur' (TCA) January-February is now available to members. For membership information, please visit: [wp.rac.ca](http://wp.rac.ca)

May 2018



## RAC News

### Maple Leaf Operators

### *New RAC 25th Anniversary Edition and Challenge Coin*

Radio Amateurs of Canada is pleased to announce two new levels of RAC Maple Leaf Operator Memberships: Silver and Gold

The Maple Leaf Operator Membership is a special, premium membership level designed for individuals who wish to more directly sponsor RAC and its activities, above and beyond standard membership contributions.

All Maple Leaf Operators receive the same benefits as a regular RAC member but, in addition, every Maple Leaf Operator is acknowledged in each issue of The Canadian Amateur magazine, by name and call sign, for as long as they remain at MLO status.

As part of our 25th Anniversary celebrations, we have created two new categories of our Maple Leaf Operators (MLO) Membership level: Silver and Gold.

Other national Amateur Radio organizations - as well as non-Amateur organizations supported by membership - have several levels of participation allowing those who are able to do so to make higher contributions to sustain the organization. The new Silver and Gold Maple Leaf Operator levels will make this possible.

By becoming a Maple Leaf Operator (MLO) at one of the three levels of membership listed below your contribution will directly support RAC's programs:

Bronze: \$100 per year (plus applicable taxes) provides approximately \$44 per year in additional funds to sustain RAC and to help it grow

Silver: \$500 per year (plus applicable taxes) provides approximately \$444 per year to RAC

Gold: \$1,000 per year (plus applicable taxes) provides approximately \$944 each year to RAC

If you are able to do so please join our new Maple Leaf Operator Program at whatever level you can. To upgrade now, please call us at 1-877-273-8304 or contact RAC HQ, Monday to Friday 10 am to 4 pm ET.

For more information visit:  
<http://wp.rac.ca/maple-leaf-operator/>

Alan Griffin  
RAC MarCom Director  
[ve3xra@rac.ca](mailto:ve3xra@rac.ca)

The 25th Anniversary Challenge Coin was designed by Mike Hutchison and was custom-designed and manufactured by KingPins for RAC. Its design depicts the commitment to a strong 25 years of Amateur Radio with a large maple leaf acknowledging a true sense of Canadian pride. The back design is the classic RAC logo with a beautiful gold crest and accents. It is a unique collectable and is a great collectors piece for any member of the Amateur Radio community.

Through the RAC Challenge Coin program, we hope to raise sufficient funds to make RAC stronger and enable it to deliver more services and benefits to our members and to Amateur Radio in Canada and internationally during our next 25 years.

<https://wp.rac.ca/25th-anniversary-coin/>







John Schouten VE7TI

## ***Pixie 40m QRP CW Transceiver***

I have my CW qualification from the days when you had to know Morse code to get HF privileges. No, I have not been active on CW. Frankly, though CW is more challenging, and perhaps the truest form of our hobby, I still prefer to deal with a real voice. Nevertheless, I own several keys and paddles and I keep promising myself that I will get back to it.

I came across this kit while searching for a good price on some unrelated electronic components on eBay. I did a double-take when I saw the price. You can really buy a 40m transceiver for less than five bucks? The cost of the parts alone are more locally. I ordered it. I have experienced significant delays ordering through eBay on items from mainland China. Given the choice I look for a supplier in Hong Kong. I don't know why but those items arrive much quicker. Sure enough, about 2 weeks later the package came through my mail slot. I expected a poor quality circuit board and inferior parts. To my delight, neither was the case.

The Pixie is a small, direct conversion CW QRP transceiver using just a handful of common parts and is a retail kit. It is relatively basic and without surface-mount parts so most people should be able to build it. It might be harder for a first timer, but with some help you can make a working transceiver and a great educational experience. You do have to buy connectors, wire and an optional

enclosure. The latter is always a good idea when dealing with a transmitter to reduce interference.

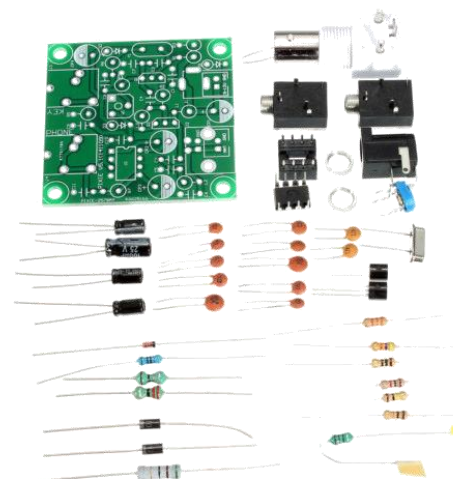
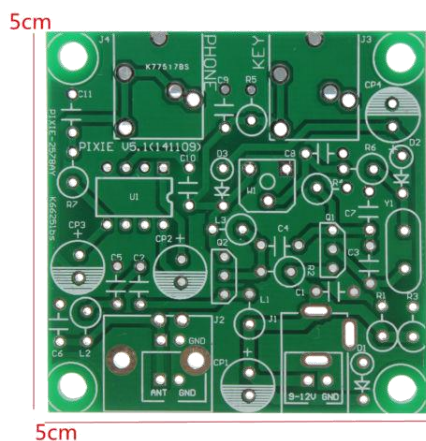
The Pixie is an HF CW transceiver, with a standard two transistor transmitter. It's a Colpitts oscillator, left running, and a keyed power amplifier (PA). There is no external mixer used to feed the audio amplifier. The mixing is done at the final amplifier itself with the audio taken off the emitter. Depending on the PA device chosen, RF power outputs of between 100mW and 500mW may be achieved.

The only components which are band critical are in the Transmitter (Tx) PA output, so modifying for different bands (40M to 80M) can be done. On receive, the Tx PA is used as a mixer which feeds the LM386 audio amplifier. This is a bare bones transceiver there's no RIT, a simple switch and cap in parallel, between the crystal will work as an offset though and there's no volume control for the audio.

The whole idea here was to make a tiny rig that worked, with room for improvements, using a minimum of parts. In some cases you may also experience hum with an external Power Supply - I'd recommend a Battery and you might also hear some BCI (Broadcast interference). There are lots of modifications (mods) on-line that will improve this little device but there are



May 2018



also lots of YouTube videos that show construction and use :

<https://youtu.be/wl7eXnn-YvE>,  
<https://www.youtube.com/watch?v=oNu0kqH5Jnw> and  
<https://www.youtube.com/watch?v=MkRB7KFEb5A>

are three of the better ones. With the latter one, the author F4WBY sent CW from his Pixie and checked the Reverse Beacon Network. He had been heard by Dx monitoring stations at up to 13dB. Of course your choice of antenna will have quite an impact as well.

Hams have made many contacts and, despite the low power (.8W at 9 volts and 1.2 W at 12 volts), many of them have been over hundreds of miles away. It takes some skills to make contacts, but it can be done. Not a great primary rig, but

you will have some fun building and playing with it.

### CONSTRUCTION

You need to be able to solder and trouble shoot a little, but it's worth the time. Also you need to know a little about reading a schematic as some of the instructions are obviously written by someone in China who does not have a good grasp of English.

You will need a low wattage soldering iron with a small tip, some rosin core solder, solder wick (for removing parts if necessary), small wire cutters, needle nose pliers. Use eye protection, while cutting leads.

All the components, except for U1 the LM386, are mounted vertically. I'd recommend to start at one end of the board and work to the other. There are no coils to wind, no alignment either. Once you apply power you should be able to hear the oscillator start up by listening on a near by receiver. Then check for audio at the headphones. If you run into noise/oscillation check the power. Use a new alkaline battery.

There are a lot of good resources on the Web:

<http://www.al7fs.us/AL7FS2.html>

<http://homepage.ntlworld.com/laphorn/pixie.htm>

### Technical parameters:

Power supply: DC 9V-14V

Antenna: 50 ohm, unbalanced

Receive quiescent current: 10mA @ 9V

Transmit power: 0.8W@9V, 12W@ 12V

Frequency range: launch 7.023MHz, receive 7.023-7.026MHz  
 (7.023MHz crystal)

Mode: CW

Buy it on Amazon (US\$8.99 + US\$3.99 shipping) :

<https://www.amazon.com/QRP-Pixie-CW-Transceiver-Kit/dp/B01N5FS7US>

Amazon.ca (C\$8.35 free shipping):

[https://www.amazon.ca/Jili-Online-Shortwave-Transmitter-5x5x0-2cm/dp/B06WWCTNK3/ref=sr\\_1\\_1?ie=UTF8&qid=1527574736&sr=8-1&keywords=shortwave+radio+transmitter](https://www.amazon.ca/Jili-Online-Shortwave-Transmitter-5x5x0-2cm/dp/B06WWCTNK3/ref=sr_1_1?ie=UTF8&qid=1527574736&sr=8-1&keywords=shortwave+radio+transmitter)

Triple the Pixie output power mod:

<http://vtenn.com/Blog/?p=1348>

My Pixie came from Hong Kong via eBay (C\$3.12 + C\$1.49 shipping):

<https://www.ebay.ca/itm/DIY-7-023-7-026MHz-Ham-Radio-40M-CW-Shortwave-QRP-Pixie-Transmitter-Receiver-Kit/391635001944?hash=item5b2f43e258:g:ShsAAOSwstxVOND5>

The problem with these little rigs is not so much in the sending but in the receiving. There is no filtering and the front end is a bit crude so interference from other stations is a concern. I thought I might try some QRP with this little rig. If I can set it up to work with WSPR then I can use the web to check my signal using the reverse beacon network

<http://www.reversebeacon.net/>. After all, if I can be heard with 1 watt, 100 watts on my iCom rig should really let me be heard.

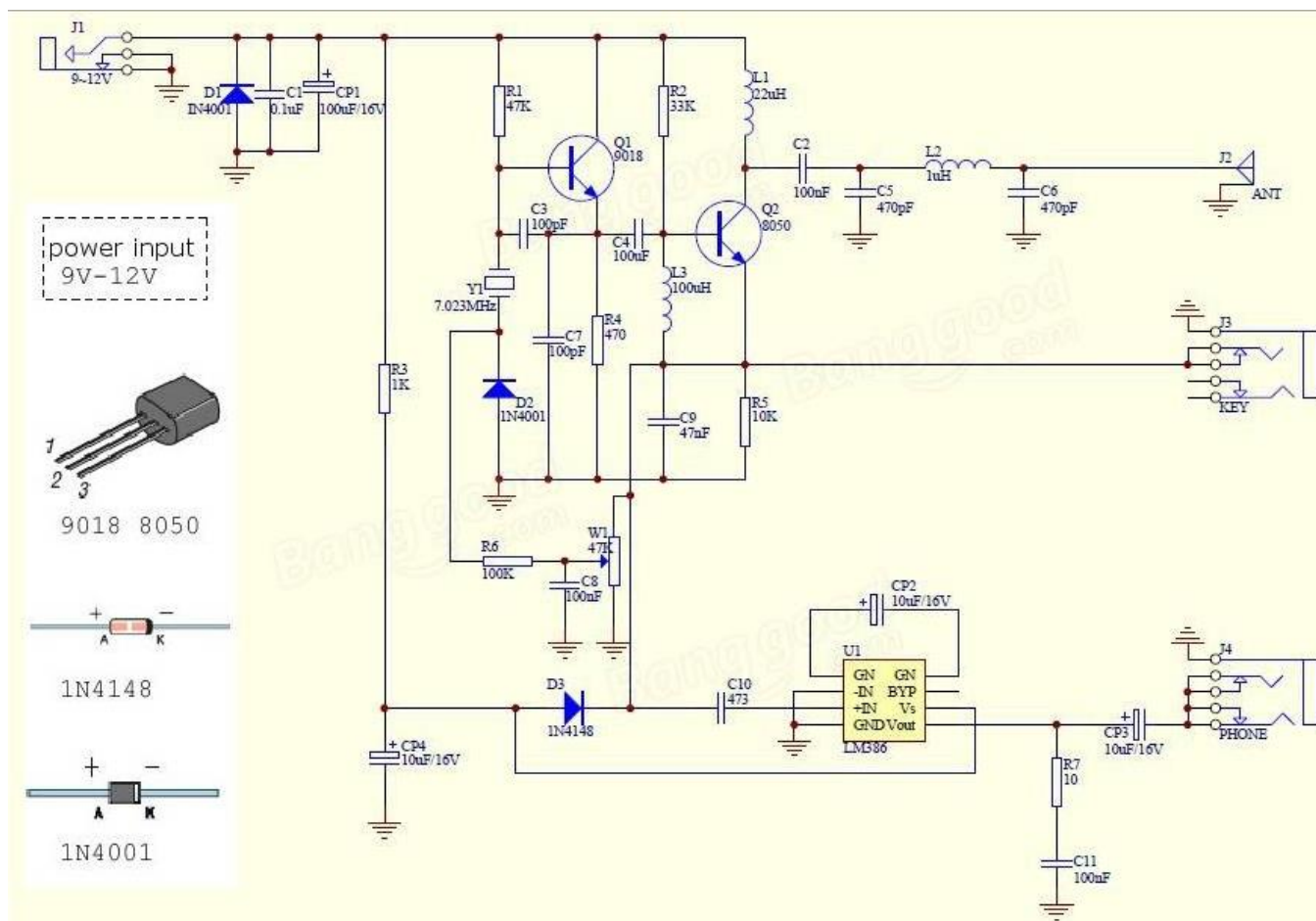
~ John VE7TI

## Learn CW In An Hour

Learn CW, also known as Morse Code, the easy way by following the "G. SYSTEM"! Instead of trying to memorize complicated series of codes, just follow the PATTERN within each letter of the alphabet! Watch the way that helped Mr.G. learn the basics of Morse Code.

Hmmm, maybe?

<https://youtu.be/PCQjE9yj5n4>





May 2018

## SARC CLUB EXECUTIVE 2017-2018

### PRESIDENT

Stan Williams VA7NF  
[president @ ve7sar.net](mailto:president@ve7sar.net)

### VICE PRESIDENT

John Brodie VA7XB  
[vicepresident @ ve7sar.net](mailto:vicepresident@ve7sar.net)

### SECRETARY

Jeremy Morse VE7TMY  
[secretary @ ve7sar.net](mailto:secretary@ve7sar.net)

### TREASURER

Scott Hawrelak VE7HA  
[treasurer @ ve7sar.net](mailto:treasurer@ve7sar.net)

### DIRECTORS

John Schouten VE7TI  
(Communicator Editor  
& SEPAR Liaison)  
[communicator @ ve7sar.net](mailto:communicator@ve7sar.net)

Sheldon Ward VA7XNL  
(Repeater Manager)  
[repeater @ ve7sar.net](mailto:repeater@ve7sar.net)

Robert Fishwick VA7FMR  
(Net Manager)

Bill Gipps VE7XS

### MEMBERSHIP

John Brodie VA7XB  
[membership @ ve7sar.net](mailto:membership@ve7sar.net)

### QSL MANAGER

Heinz Buhrig VA7AQ  
15684 102 Avenue  
Surrey, BC V4N 2G4

### EMAIL ALL DIRECTORS

[directors @ ve7sar.net](mailto:directors@ve7sar.net)



John Brodie VA7XB

## *The Last Word*

Field Day for 2018 will be held the weekend of 23 & 24 June. SARC and SEPAR are again working together to make this an even better Field Day than last year.

Field Day is part contest, and part emergency communications field exercise. Again this year, our Field Day operation involves:

- Over a 24 hour set-up period, turning a grassy field at the Grandview Heights school grounds (located at the north-west corner of 20th Avenue and 176 St/Pacific Highway) into a fully functioning radio communications centre.
- Carrying out a 24 hour intense operating period, racking up as many contacts as 100 watts and propagation conditions permit, using only emergency power.
- Over that same 24 period, hosting dignitaries, representatives of official agencies and members of the public, and explaining amateur radio.
- Providing meals and liquid refreshments, sanitation facilities, and shelters in case of wet weather.
- At the end of the 24 hour operating period, and over only a few hours, taking everything down and packing it away, while returning the site to its original (or better) condition.

The planning and skills employed are the same as we would need in a

genuine emergency. Field Day provides us with a superb opportunity to demonstrate to visiting politicians and agency representatives, members of the public, and ourselves how valuable amateur radio can be in the event of an emergency.

Over recent years, we obtained the top score in Canada in our category. Competition for 2018 will be fierce, but we again intend to have the top score in our category in Canada.

As always, there is a big need for helping hands to setup the operation (starting at 11:00 on Friday 22 June), and then (starting Sunday at 11:00) take everything down and pack it up for next year. Members of SARC & SEPAR are always encouraged to stop by with family and friends on Saturday afternoon.

Pulling together an operation this comprehensive takes a great deal of effort, and the Planning team has been working for months to arrange all the details. Subject to good propagation and active member participation, we should have another spectacular year.

Don't forget to bring:

- Safety gear
- Flashlight
- Hats and sunscreen

Most of all... Enjoy it!

~ John Brodie VA7XB  
SARC Vice-President

## It's June

The next Surrey Amateur Radio Club general meeting is on Wednesday, June 13. This will be our Annual General Meeting where the Directors will report on the past year's activities and on what lies ahead.

Please note that this draws our 2017-2018 season to a close. We will be taking a Summer break after Field Day and the next issue of The Communicator should be in your mailbox September 1st.

There will be a social meeting at the OTC on the 2nd Wednesday of July and August to take the place of the regular monthly meeting.



## Down The Log...

### SARC Monthly Meetings

2<sup>nd</sup> Wed. (Sept-Jun)  
1900 hr at the PREOC  
Emergency Mgmt BC  
14292 Green Timbers  
Way, Surrey, BC

### Weekly Club Breakfast

Saturday between 0800  
and 1000 hrs at the  
Kalmar Family Restaurant  
8076 King George Blvd.  
Surrey

### SARC Net

Tuesday at 2000 hr local  
on 147.360 MHz (+)  
Tone=110.9

### SEPARS Net

Tuesday at 1930 hr local  
on 147.360 MHz (+)  
Tone=110.9

### VE7RSC Repeaters

2m: 147.360MHz+  
Tone= 110.9Hz  
IRLP node 1736  
Echolink node 496228

1.2m: 223.960 Mhz -1.6  
Tone=110.9

70cm: 443.775MHz+  
Tone= 110.9Hz  
IRLP node 1737

**SARC** hosts an Amateur Radio net each Tuesday evening at 8 PM. Please tune in to the VE7RSC repeater at 147.360 MHz (+600 KHz) Tone=110.9, also accessible on IRLP node 1736 and Echolink node 496228.

On UHF we operate a repeater on 443.775MHz (+5Mhz) Tone=110.9 or IRLP Node 1737.

	SARC Net 20:00 Hrs
1 <sup>st</sup> Tuesday Standby	Drew VA7DRW Dixie VA7DIX
2 <sup>nd</sup> Tuesday Standby	Jinty VA7JMR Sheldon VA7XNL
3 <sup>rd</sup> Tuesday Standby	Rob VE7CZV Vacant
4 <sup>th</sup> Tuesday Standby	Kapila VE7KGK John VA7XB
5 <sup>th</sup> Tuesday Standby	Robert VA7FMR Vacant
Want a turn at Net Control? Contact the SARC Net Manager	



### We Have A SARC Patch!

These are suitable for sewing on a jacket, cap or your jammies, so you can proudly display your support for the club.

The price is \$4 each or three for \$10 and they can be picked up at a meeting or the weekly Koffee Klatch.

## Burnaby Radio Communications

**Michael J. Wong** VE7HMW  
President/Owner

4257 Hastings Street  
Burnaby, B.C. V5C 2J5  
Phone 604-298-5444  
Fax 604-298-5455

Commercial / Amateur Radio

Email: [sales@burnabyradio.com](mailto:sales@burnabyradio.com)  
web: [www.burnabyradio.com](http://www.burnabyradio.com)

*We thank our sponsors  
for their SARC support.  
Please support them.*

## COAX PUBLICATIONS INC STUDY GUIDES

### BASIC QUALIFICATION:

#### The Canadian Amateur Radio Basic Qualification Study Guide

- New 9th edition.
- Updated to the current (2014) Industry Canada exam bank.
- This book is the most widely used study guide in Canadian Amateur Radio classes.

\$44.95 + shipping and taxes

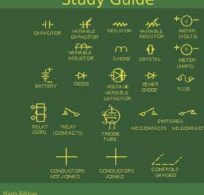
### ADVANCED QUALIFICATION:

#### The Canadian Amateur Radio Advanced Qualification Study Guide

- Updated to the current (2014) IC exam bank.
- Covers many topics in modern communications that are not in the IC Question Bank.
- We have included the small amount of additional material required to match the IC 2014 update in the online Student Success Pages.

\$44.95 + shipping and taxes

#### Canadian Amateur Radio Basic Qualification Study Guide



Free Edition

Includes Unlimited Access To Student Success Pages On Our Web Site

Coax Publications Inc

#### Canadian Amateur Radio Advanced Qualification Study Guide



Free Edition

Includes Unlimited Access To Student Success Pages On Our Web Site

Coax Publications Inc

### Basic, Advanced or Instructor:

**we have them all!**

*All of our Study Guides feature:*

- Unlimited Access to our acclaimed Student Success Pages on our web site.
- Strong Lie Flat Binding – the book will stay where you opened it when on a flat surface.
- Contextual material that goes far beyond the bare requirements of the IC examination.

Clubs: Note special low club prices for orders of 7 or more books!

Order From Our Web Site  
<http://www.coaxpublications.ca>

# FLEETWOOD

## DIGITAL PRODUCTS

Two Way Radios... For Less

<http://www.fleetwooddp.com/digital>

[radio@fleetwooddp.com](mailto:radio@fleetwooddp.com)



These folks did a great job on the hydraulics for our antenna trailer.

18549-97 Ave., Surrey, BC, V4N 3N9 604-882-9787

<http://www.htihydraulics.com/about-us.html>

## HYDRAULIC TECHNOLOGIES INC.





# ANNUAL GENERAL MEETING

Of The

## SURREY AMATEUR RADIO CLUB

**June 13, 2018 at 7PM**

**Emergency Management BC Offices  
14292 Green Timbers Way, Surrey, BC**

### **Agenda**

1. Welcome, call to order and confirmation of quorum
2. Approval of the agenda
3. Approval of 2017 AGM Minutes
4. Presentation and approval of annual financial statements
5. Announcements
6. Committee Reports
7. New and other business
8. Election of Directors
9. Adjournment

### **Call For Nominations:**

Members elect up to 4 Directors annually for a two year term. Directors, in caucus, appoint the Officers (President, Vice-President, Secretary and Treasurer).

Directors whose 2-year terms expire are: Stan Williams, Jeremy Morse, Bill Gipps, and Sheldon Ward. Nominations are currently being sought and will also be taken from the floor.

**Only members in good standing may vote at the AGM**

**This requires that annual dues for 2018-2019 be paid prior to or at this meeting**



## **Your 2017—2018 Executive**

### **Officers:**

**President:** Stan Williams VA7NF

**Vice-President:** John Brodie VA7XB (Membership)

**Secretary:** Jeremy Morse VE7TMY (Website)

**Treasurer:** Scott Hawrelak VE7HA

### **Directors:**

John Schouten VE7TI (Newsletter & Social Media Editor)

Sheldon Ward VA7XNL (Repeater Manager)

Robert Fishwick VA7FMR (Net Manager)

Bill Gipps VE7XS

## **Minutes Of The 2017 Annual General Meeting**

### **June 14, 2017**

The 2016/2017 Annual General meeting of the Surrey Amateur Radio Club (held at the Emergency Management BC Offices/PREOC) was called to order at 7:05pm on June 14, 2017 by President, Stan Williams VA7NF. 31 members were in attendance.

### **Welcome**

Stan Williams VA7NF - welcomed everyone to the meeting and reminded the group that dues are to be paid tonight in order to participate in the vote for directors. Stan confirmed we have a quorum of members attending the meeting. The agenda for the evening was presented on screen.

Agenda: Rob Gilchrist VE7CZV - moved that we approve the agenda (seconded by, Don Hamilton VA7GL and carried).

2016 AGM Minutes: Jeremy Morse VE7TMY read aloud the 2016 AGM minutes, and Stan Williams VA7NF moved that we approve the previous minutes (seconded by Jay Melvin VE7KC and carried.)

### **Audited Financial Statements**

Scott Hawrelak VE7HA - presented the audited financial statements for the year (income Statement, Balance Sheet and the General Ledger were made available for inspection).

### **Announcements**

John Schouten VE7TI - Earlier this year Kevin McQuiggin VE7ZD who presented at our March meeting about GnuRadio and RTL-SDR dongles has offered to host a Workshop. This was presented in the last SARC

Communicator and the details can be found there. The workshop will be on a Sat morning sometime late summer or Sept. An application form is being passed around to gauge interest.

### **Basic Ham Class**

John Schouten VE7TI - In the past year we ran 2 classes one in the fall and the other in the spring. The spring course was well attended with 21 students who all passed including 10 with honours. Next class will be the 1st Tuesday after Labour Day (Sept 5th)

### **OTC**

John Brodie VA7XB stated that a detailed report was presented in the last SARC communicator and that we are getting closer to having a fully functioning radio room with 1 first class station and 2 of lesser quality but still functioning. We have almost spent the BC Community grant received this year. We have received most of the smaller items and the larger items are still on order but expected to arrive in the next few weeks. Over the summer we will be working on preparation for a Lottery Grant application. This will be for the purpose of equipping the second and eventually the third radio stations. John would like to call an OTC Committee meeting this month to discuss where we go from here. He proposes Wednesday June 21 @7pm. An email will be sent out to confirm attendance.

Scott Hawrelak VE7HA listed the major expenses for equipping the OTC so far. He also noted that we usually get free cheques from HSBC. This year we were charged \$145 for 200 cheques. Somehow a second order was charged and 200 additional cheques were received. We will plan to keep the extras since they will be used



## **2018 Annual General Meeting**

eventually this is easier than returning them and the costs will likely go up. We use about 50 per year and will have approx. 8 year supply of cheques.

### ***Fox Hunt***

Stan Williams VA7NF - reminded everyone of a nicely worded email that went around about the outstanding fox hunt with the Surrey Amateur Radio Club. He expressed a big "thank you" to Anton James VE7SSD for his effort and organization of the fox hunt. Anton James VE7SSD reminded everyone that a detailed report for the fox hunt including the winners is in the SARC newsletter. John Brodie VA7XB thanked George Merchant for great publicity in the NSAR newsletter.

### ***Membership Report***

John Brodie VA7XB - we currently have 120 members including many ham class students who get a free year's membership. 35 are now paid up as of this meeting. This leaves less than 70 members who need reminding to renew.

### ***New Business***

Stan Williams VA7NF - Called for any new business before the coffee break and the election of officers.

### ***Proposed By Law Changes***

John Brodie VA7XB - To improve the consideration for the Lottery Grant some changes are being proposed, as presented in the last SARC communicator but also presented on screen for the members attending the meeting. Proposed changes are to allow all classes of member to be elected to the Executive. Geoff Higginson VA7HIG - moved that we accept the proposed bylaw changes (seconded by Don Hamilton VA7GL and carried)

### ***Field Day***

Sheldon Ward VA7XNL reported that we're only 10 days away and the location is the same as in 2015, i.e. the old school site at 20th Ave and 176th St. Surrey MLA Marvin Hunt has confirmed his attendance.

Stan Williams VA7NF - Hydraulic Technologies Company has taken the entire pump in for servicing and found the oil reservoir was filled with oil/water/rust/gel which clogged the intake filter and cause the failure. It has been repaired but not yet picked up or installed. The entire bill of ~\$600 has been waived as a donation to the club. We will be adding their card to the SARC Communicator as a sponsor of the club.

Jay Melvin VE7KC - suggested that we prepare a letter of thanks to the Hydraulic Technologies Company. Scott Hawrelak VE7HA - recommended we send them a gift certificate as well.

- Sheldon's Yaesu FTDX-3000 and Stan's Flex 6700 are committed to the event so far.
- Satellite contact may be possible if anyone is interested.
- Food is being prepared by Nell Wrotniak VA7PE

### ***Meal Plans***

Friday Breakfast Kalmar @8:00am

Friday Lunch BYO

Friday Dinner Pizza will be provided for those helping setup

Sat Breakfast BYO

Sat Lunch Hot dogs, chips and water provided by Nell

Sat Dinner BYO, the club BBQ will be available

Sun Breakfast Pancakes/Sausages provided by Nell

Sun Lunch BYO

- Propane fire pit provided by Jeremy for social gathering Sat evening
- Bring your own chairs
- Request for operators will go out via email or you can sign up tonight.
- Long term forecast looks dry.
- Need some volunteers to plan to stay overnight on security detail.
- Field Day Committee meeting needed this weekend.
- Some setup required still for the computers.
- Friday night there is a QRP practice session.

### ***Coffee Break***

### ***Election of Directors***

Stan Williams VA7NF began the election process by asking Scott Hawrelak VE7HA if there were any members present who have not paid dues. Scott confirmed that all present have paid. Stan noted that there are 4 positions to fill and 4 Directors have offered to stand already and asked for further nominations from the floor.



Sheldon Ward VA7XNL nominated Anton James VE7SSD. Dixie Mogg VA7DIX seconded Anton accepted. Geoff Higginson VA7HIG nominated Arthur Siemens VE7SIE. Arthur accepted the nomination. Stan Williams VA7NF - After 3 calls for nominations from the floor he moved that nominations close (Carried).

A request was made from the floor that all nominees provide a quick introduction. Each of the candidates provided brief statements.

Nominees:

- John Brodie VA7XB
- John Schouten VE7TI
- Scott Hawrelak VE7HA
- Robert Fishwick VA7FMR
- Anton James VE7SSD
- Arthur Siemens VE7SIE

Stan Williams VA7NF called for 3 scrutineers to count the ballots. Scrutineers were:

- Pam Hamilton VE7PFH
- Sheldon Ward VA7XNL
- Geoff Higginson VA7HIG

Directors elected were:

- John Brodie VA7XB
- John Schouten VE7TI
- Scott Hawrelak VE7HA
- Robert Fishwick VA7FMR

Kjeld Frederiksen VE7GD - moved to destroy the ballots (seconded Arthur Siemens VE7SIE and carried). Sheldon Ward VA7XNL will destroy ballots.

Stan Williams VA7NF moved to adjourn the meeting (carried).

Meeting adjourned at 9:21pm

*Minutes prepared by Jeremy Morse VE7TMY*



**Only members in good standing may vote at the AGM**  
This requires that dues be paid for the 2018/2019 fiscal year prior to, or at, the AGM.

**Reminder!!!  
My SARC  
membership  
renewal is due**

<sup>Note</sup> The PREOC may be activated. If so we may have to amend the location of the AGM. Members will be notified via email if there is a change of venue.